

Encyclopaedia of Yoga for Common Diseases

Volume I

- **Heart Diseases**
- **Diabetes**
- **Backaches**
- **Arthritis**
- **Asthma**

Volume II

- **Skin Diseases**
- **Hypertension**
- **Obesity**
- **Headache**

Volume III

- **Alopecia (Baldness)**
- **Constipation**
- **Stress**

Volume IV

- **Depression**
- **Menopause**
- **Impotency**

Volume V

- **Personality Disorders**
- **Stomach Diseases**
- **ENT Diseases**

Volume VI

- **Amnesia (Loss of Memory)**
- **HIV and AIDS**

Encyclopaedia of Yoga for Common Diseases

In 6 Vols.

Vol. VI

**Amnesia (Loss of Memory)
and HIV & AIDS**

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“By ourselves is evil done,
By ourselves we pain endure,
By ourselves we make us pure.
No one helps us but ourselves,
No one can and no one make
We ourselves must tread the path,
Buddhas only guide the way...”

— **Dhammpad**

“But the man who is ignorant, who has
no faith, who is of a doubting nature,
perishes. For the doubting soul, there
is neither this world beyond nor any
happiness. We must have a positive
basis for life; an unwavering
faith which stands the test of life.”
Sarira Madhyam Kalu Dharma Sadanam

— **Dr. S. Radhakrishana**

Introduction

Amnesia (Loss of Memory)

This part is designed to give the reader some basic information about the meaning, nature of memory and the causes of Amnesia (Loss of memory) and how loss of memory can be treated, cured and prevented with different Yogas and techniques namely Asanas, Pranayama, Meditation and Yogic diet.

The Brain and Nervous system control the whole system. The spinal cord leading from the brain sends nerve ends to every part of the body. Three brain structures are critical to the formation of memories, the medial temporal lobe, certain diencephalic nuclei, and the basal forebrain. The medial temporal lobe houses the hippocampus and elongated highly repetitive network. Amygdala is adjacent to the anterior end of the hippocampus. The amygdala has been suggested to rate the emotional importance of an experience and to activate the level of hippocampal activity accordingly. Thus an emotionally intense experience is indelibly etched in memory. Within the diencephalon the dorsal medial nucleus of the thalamus and the mammillary bodies appear necessary for memory formation. One of the most important characteristics of brain is that it is a store house of memories.

HIV and AIDS

This part is designed to give the reader some basic information about the meaning, symptoms and transmission of HIV/AIDS, a Global problem, and how this grave problem can be checked and controlled with the Yogic practices namely Yogic principles, Asanas, Pranayama, Meditation and the diet therapy. The relationship of Yoga and sex has been dealt with in detail.

How sex problems and sex diseases can be checked and cured with the help of Yogic practices. A disproportionate desire for sexual activity may exist which renders an individual either 'Under sexed' or 'Over sexed'. Usually these conditions result from emotional factors. Because of emotional disturbances, 'Under sexed' individual becomes inhibited concerning genital activity. So that the desire for sexual activity is diminished conversely the 'Oversexed', individual suffers from mental upsets that result in heightened sexual activity. In this opposite extreme the 'Over sexed' persons seek to express through genital activity the sexuality they strive to satisfy.

AIDS is the deadliest epidemic in human history. We must rise to the occasion and with firm determination act to combat this dreaded disease. The disease is likely to claim millions of lives across the globe in the next 10 years. Aids prevention is too serious an issue to be left to the indifferent state governments to implement.

AIDS (The Acquired Immune Deficiency Syndrome) is caused by the HIV/Human Immunodeficiency Virus. HIV can be transmitted by contaminated needles or other objects that penetrate the skin. Large numbers are being infected from heterosexual and bisexual partners. Between one and 10 years after infection 80% of people develop aids or a wide spread lymph node problem or brain involvement. Fifty percent will develop the full aids pattern with such severe loss of immunity that they become susceptible to a wide range of infections and some cancers.

The present work is an endeavour to consider the various aspects of the most serious problems HIV/AIDS, sex, drugs, and drug abuse, and to suggest preventive measures in the light of Yoga. Whosoever wants to free himself from the din and noise, trials and tribulation, stresses and strains and fear and psychosis, sexual problems must come to the refuge of Yoga—the eternal sedative the only choice before making.

PART-XIX
AMNESIA
(LOSS OF MEMORY)

1

The Brain and Nervous System

The Nervous system is the governing agency of the body. It controls all muscular movements, whether voluntary or involuntary. It is responsible for all conscious, subconscious and unconscious thoughts and regulates many vital processes such as circulation, digestion and elimination. Constantly sensitive to changes on inside and outside of the body, the nervous system detects and differentiates all kinds of stimuli. Depending on the nature of the stimuli, this system may react immediately, may delay responses or may never react. For example, the pupil of the eye immediately narrows in a bright light. The nervous system is made up of two main divisions (1) The central nervous system composed of the brain and spinal cord and (2) the peripheral nervous system. The latter consists of twelve pairs of nerves arising from the brain., 31 pairs of nerves coming from the spinal cord and the nerves of the autonomic nervous system which supply the internal organs and blood vessels.

The Brain

The brain is the control station for nerve impulses. It is composed chiefly of nerve cells with their fibres

interwoven in a complex relay system. In the average adult, it weights approximately 45 ounces. At birth it weighs only eleven to thirteen ounces, but it increases in weight until about the 20th year. After this there is steady loss of weight for the reminder of the persons life. The brain is divided into four parts (1) the medulla oblongata, continuous above with the mid brain and below with the spinal cord (2) the midbrain, the part between the cerebellum and cerebrum (3) the cerebrum and (4) the cerebral hemispheres. The medulla oblongata is about three fourth of an inch to one inch in length. Externally it looks like an expanded part of the spinal cord. Internally however, its structure is quite complex and consists of nerve tracts, passing into the brain. From some of the nuclear come fibres that eventually emerge to form the 8th, 9th, 10th and 12th cranial nerves. Cells centres in this area are also concerned with swallowing, vomiting, breathing, speech, digestion, metabolism and the beating of the heart. In the medulla oblongata, the large bundles of fibres, which originated in the two halves of cerebrum and which transmit the impulses of voluntary movements, cross to the opposite side. Thus movement in the right arm for example, is controlled by the centres in the left half of the cerebrum. Lying above the mudulla oblongata and continuous with it is the pons. It is made up of massive bundles of fibres that start in the cerebrum and sweep backward to the cerebrum. This connection makes possible many skilled acts that require coordination of sight, hearing muscular movement and various other sensations. The playing of musical instrument is an example of such an act. The pons contains a space called the fourth ventricle. In the floor of this vertical is the nucleus of the cranial nerve. The pons is concerned with contraction of the pupil of the eye, blinking, and with some vocal reactions, including laughter.

The cerebrum, the second largest part of the brain, is back of the pons. It lies in the back of the skull. It is made up of many narrow, leaflike folds arranged into two large masses, and of a middle portion. Rich in cells, it has many complex connections with the brain above it and with the spinal cord below. The chief function of the cerebellum is to coordinate more or less complex movements into special acts. This may be movement in different parts of the same limb, combined action of the limbs or combined action of the head and limbs and body. For example picking up a pencil writing with it and laying it down again requires smooth interaction of many muscle groups. The cerebellum correlates the actions of the various groups. To do this range, direction rate and force of movement must be synchronized and maintained with the movement of the eye. Disease in the cerebellum does not cause paralysis. It does produce disturbance of muscular coordination tremors, staggering gait and excessive relaxation of the muscles result from disease in this part of the brain. The mid brain is a small area between the pons and the cerebrum. It is an important relay station for the sensory impulses. It also governs some muscle activity of a reflex nature. Many of the involuntary acts of the eye, such as narrowing of the pupil in bright light, originate here. The 3rd, 4th and 5th cranial nerves originate from cell collections in this area of the brain. Just above the midbrain is an important group of unclear. Here the two large nerves from the eyes meet, and part of their fibres cross to the opposite sides. Other cells of this region are concerned with such vital functions as regulation of body temperature, metabolism and heart rate. Sexual development, sleep and body's use of fat and water are all influenced by this region in the brain. The Thalamus, which is found next to this group of cells, contains another group of nuclei which integrate sensations of many sorts. Also it is the sight of crude form of

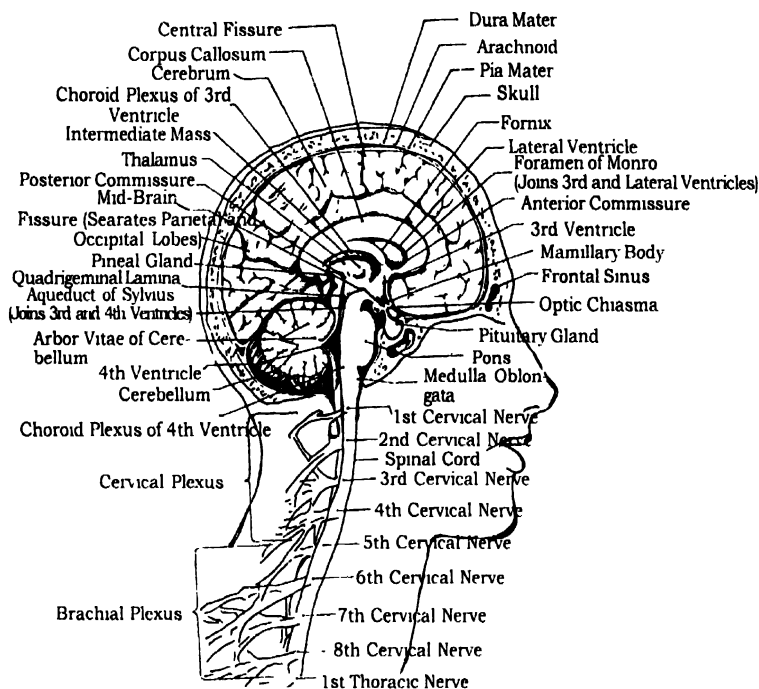


Fig. 1.1: The Brain

consciousness and plays a role in the production of emotion. When this part of the brain is diseased spontaneous laughter or crying may occur. The crude emotional responses that arise are further elaborated and controlled by the cerebral cortex.

Above these nuclei are two cerebral hemispheres which represent 70 percent of the entire nervous system. This is the area of the nervous system in which all the sensory experiences are mixed and blended. Specific sensory impulses thus become associated with many others and expand the experience and consciousness. The individual's capacity for many and varied activities, memory, emotion, and ideas is dependent on the action of this part of the nervous system. The surfaces of the

hemispheres are marked by large, rounded folds and deep grooves. Partly on the axes of the main grooves and partly on imaginary lines, the cerebrum is divided into fine lobes, frontal parietal, insula temporal and occipital. Each lobe has special functions but these functions are only partially understood. The occipital lobes at the back of the skull are the site where visual impressions are made. Colour size, form, movement and distance are evaluated in this portion of the brain, leading to the identification of a particular object. Also the difference between similar objects are discerned. For example, two objects high in the air can be recognised as a bird and an airplane on the basis of past experience. Injury to this area may cause blindness. The temporal lobes receive the fibers concerned with hearing speech balance and smell. Diseases related to these lobes cause loss of smell, or they may be responsible for imaginary smells.

The parietal lobes are concerned with taste sensations and some other sensations such as the ability to judge weight, shape and texture. By the action of this area, one is able to tell what various objects are by feeling rather than by seeing them. The frontal lobes are concerned with some of the most complex abilities of the mind. Reason, emotions and judgement have their site here. In addition there are group of large cells in the posterior region of the frontal lobes which are involved with complicate voluntary movements. For instance, the speech centre is located here. It is found to predominate on the left side in right handed individuals and vice versa. However if the speech function is lost because of injury to only one side of the brain, it can often be reacquired by re-education. The area responsible for these complex voluntary movements is called the motor cortex. The muscles of the body are supplied by various areas of the motor cortex. Irritation of the cells in these zones will cause spasms of the

muscles they supply. Destruction of the cells will produce complete loss of voluntary movement of the muscles. Another function of the cells of the motor cortex is to keep the muscles in balance between relaxation and contraction. If this region of the brain is seriously damaged or destroyed this inhibiting power is lost.

The frontal lobes have many connections with the thalamus as well as with other lobes of the brain. In the frontal lobes feelings or emotions are added to the other associations. The combination of feeling and knowing determines most voluntary action of the body. A baby seeing a piece of candy for the first time, may or may not reach for it. But the baby who has enjoyed candy tries hard to get a piece of it, when he sees it. Thinking reasonings, judgement and imagination result as the sensory and emotional associations become more complex. The way in which these higher functions are used is a quality of personality. Disease in the frontal lobes of the cerebrum causes personality changes, errors in judgement and insight, and poor emotional control. Twelve pairs of nerves arise from the brain itself. The first is associated with the sense of smell, the 2nd with sight the 3rd and 4th with eye muscles of the pupil, and the 5th carries sensations from the head and mouth and causes the muscles of the jaw to move. The 6th is concerned with the movement of the eye to the side. The 7th carries impulses to all the muscles of the face. The 8th conducts impulses having to do with hearing and with balance the 9th transmits taste sensations to the posterior third of the tongue and other sensations from the throat and muscular membranes. It also aids in swallowing. The 10th is an exceedingly long nerve that extends down the neck and into the chest and abdomen. It is concerned with swallowing and talking. Its action also slows the rate of the heart beat and regulates the movement of the stomach. It is a large part of the

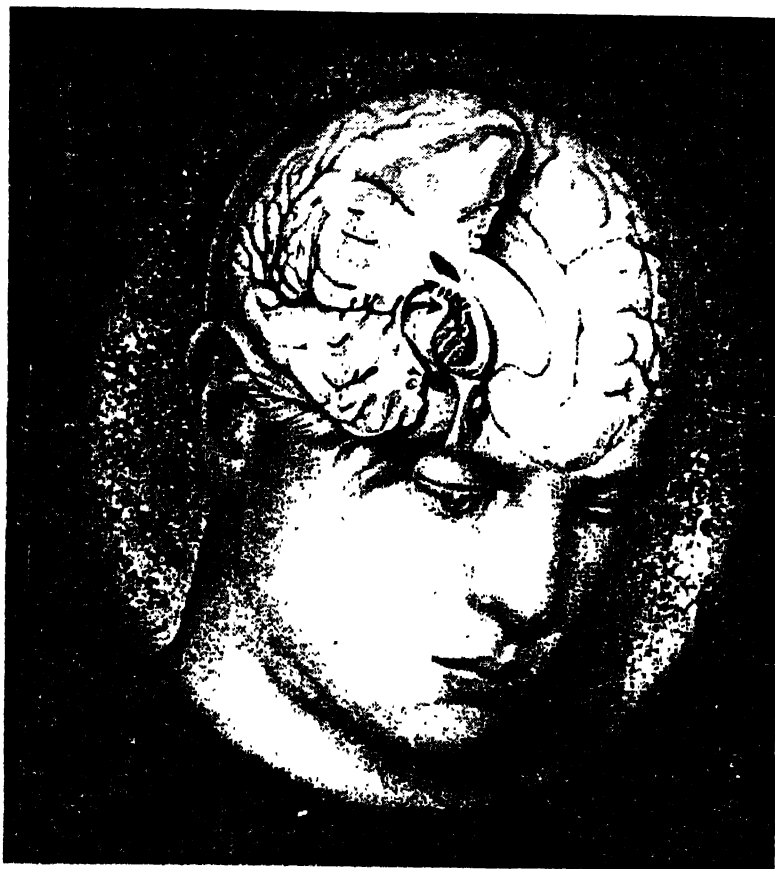


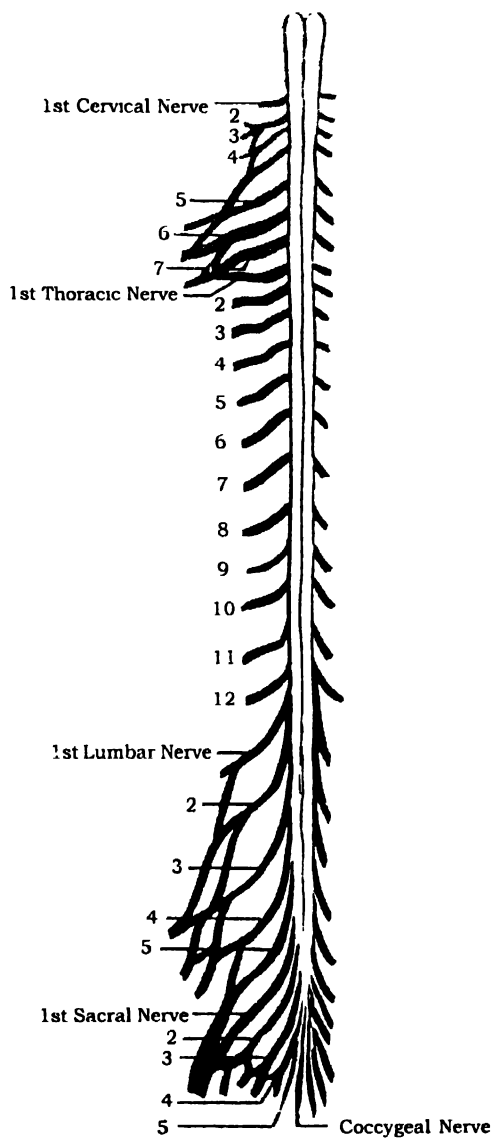
Fig. 1.2: Impaired Memory

parasympathetic system in the upper part of the body, including the esophagus, stomach, intestines, liver, bronchi lungs heart and blood vessels. The 11th nerve is responsible for the movement of the tongue.

The Spinal Cord

The nerve tracts passing to and from the brain are contained in the spinal cord, which is continuous with the lower part of the brain. It is about 18 inches long

and is rounded in shape. It is larger in the regions which give rise to the nerves to the arms and legs, since these parts have many complex functions thus acquiring a large nerve supply. From the neck to the lowest part of the vertebral column, 31 pairs of nerves emerge from the spinal cord. Each nerve is attached to the cord by two roots. Because spinal cord is not as long as the vertebral column, the roots of the nerves must gradually increase in length before they can emerge from between the vertebrae. These longer nerve roots collect in a mass that fills the lower end of the vertebral canal. The structure resembles a horse tail and is called the cauda equina. A cross section of the spinal cord reveals a gray figure, roughly shaped like an 'H' imposed on a white background. The nerve cells make up the gray matter, while the nerve bundles form the white matter. Bundles with specific functions occupy specific areas of the spinal cord. Therefore, injury to the cord will result in certain abnormal reactions which will be evident on neurological examination. The abnormal findings will suggest where the diseased part is located. Impulses which arise in the brain and are concerned with voluntary muscular movements are received by specific cells in the spinal cord. They relay these impulses to the nerves which control the various muscles. These cells have connections with other cells in the nervous system that act together to bring about reflex activity. Reflexes control the position of the head so that it automatically assumes the normal position with drawal or flexion reflexes pull limbs away from painful or disagreeable stimuli. Extensor reflexes straighten out the limbs and work with the flexor reflexes. Bladder and the bowel actions result from reflex actions over which there is some voluntary control. In injury to the spinal cord, the tracts allowing voluntary control may be interrupted so that the action is then reflex in origin. The cells on the front and anterior side of the spinal cord connect



This drawing is of the complete spinal cord and its 31 pairs of nerves. For clarity, the vertebrae are not shown. The nerves are named according to the region of the body they are opposite

Fig. 1.3: The Spinal Nerve

with cells in the cerebellum to control the direction and precision of normal muscular movement—for example the swinging of the arms as one walks. Another function of these cells is the maintenance of the proper amount of constant contraction or tone of the muscles. If the muscles are too contracted, they move too slowly and rigidly. If they are too relaxed too much stimulation is needed to make them respond. The cells along the side of the cord send out fibres that unite with others to form the sympathetic chain. These cells are concerned with the action of involuntary muscles in the intestines, arteries and other internal structures, various glands receive fibers from these cells, cells on the back or posterior side of the spinal cord receive the sensations of touch, pain vibrations, temperature, pressure and position. They then transmit these various sensations to other cells in the brain. From this it can be seen that impulses of many sorts travel down the paths in the spinal cord while others enter it and travel down the paths in the spinal cord while others enter it and travel upward to the brain. Still others enter and travel only part of the way up and set off the spinal reflexes.

The peripheral nervous system is composed of the cranial nerves. The spinal nerves and the autonomic nervous system. The autonomic system supplies nerves to most of the 'automatic' organs of the body—the glands, heart, blood vessels and involuntary muscles in the internal organs. The autonomic system consists of its network of nerves and a series of nerve-cell collections called ganglia. Some of these ganglia are connected to the spinal cord by means of fibres, which arise in its gray matter and pass out over the roots of the spinal nerves. These vertebral ganglia lie on each side of the spinal cord and send out mesh works of fibres to the organs of the abdomen and pelvis. Other ganglia arise within the brain and supply such structures as the tear

and salivary glands and the pupils of the eye. They also send our fibers in some of the cranial nerves. One important and familiar ganglion is the solar plexus. One part of the autonomic nervous system prepares the person for 'fight' or 'flight'. This part is responsible for a shift in circulating blood to skeletal and heart muscles increasing heart and lungs functions dilating the pupils of the eyes and moistening the skin with perspiration. The other division of this system is concerned with conserving and bodily resources. Thus it protects the eyes by causing the pupils to constrict in bright light and prevents the heart from overexerting itself. All the digestive processes are promoted by this part. These two divisions counter balance each other. Together they are responsible for the physical reactions and sensations that accompany the emotions. The language is rich in expressions which recognize these physical accompaniments of emotion— 'a sinking feeling in the stomach', 'white with anger' etc. These many reactions of the body to emotional states enrich life. But they also become symptoms of emotional disturbances. Thus suppressed resentment may easily cause over activity of the muscles and glands of the stomach. The produced is not imaginary because of its emotional origin. If these physical reactions persist long enough, actual changes may occur in the affected organs. The operation of the central nervous system depends on two substances: the gray matter (nerve cells) and the white matter (the nerve fibers) given off by the cells. The function of the gray matter is the generating and dispatching of nerve impulses. The function of the white matter is the conduction of these impulses to and from the cells in the gray matter. Other cells in the nervous system have no nervous function, but instead are concerned with the support and nourishment of nerve cells, Nerve tissue itself consists of cells giving off thread like processes

(axons) some of which are extremely long. The axons connect with other cells in the brain or spinal cord. These cells constantly generate receive or store up energy. Unlike most body tissues, nerve cells are never replaced once they are actually destroyed. If the cells are destroyed, their axons degenerate. Some cells concerned with generating or receiving similar impulses may be collected into definite groups called nuclei. The axons from these cells unite and form bundle of nerves which then transmit the impulses. The nerve cells are not collected into nuclei in the cerebral hemispheres, but form a uniform layer (cortex) of gray matter over the surfaces. A series of highly specialized organs called receptors detect changes in and about the body. They rapidly transmit this information to definite stations within the nervous system. This is called sensory activity some receptors gather information from a distance—seeing, hearing and smelling. Others detect things in contact with the body—pain touch and temperature. Still another group picks up information from within the body, giving a sense of bodily position. Fibers from the receptors organs pass into the spinal cord as a part of the nerve. Within the cord, they unite to form ascending tracts which connect with other spinal cells or enter the brain. Fibers from some special receptors, such as the eye, form nerves which enter the brain directly. It is thought that when a sensory impression reaches the brain. It stimulates a nerve cell which in turn, stimulates another cell. A third cell is then stimulated and so on, until a circle has been completed, and the last cell restimulates the first one. The circuit contains to fire or reverberate thus retaining to fire or reverberate thus retaining the impressions so that they can be recalled latter or compared with other impressions. It is further thought that a cell may participate in more than one circuit, thus accounting for various associations of sensory and muscular activity. In many ways the

nervous system resembles a vast electrical network, the brain acting as the chief control panel for the ascending and descending tracts. The nerve cells may be likened to tubes and batteries while the nerve fibers resemble connecting wires. Impulses received and sent over the nerves are thought to be electrical in nature. Electrical activity does occur in the brain itself and can be recorded with the proper instrument (Electroencephalograph) some of the electrical impulses from various lobes of the brain are detected by means of wires applied to the scalp. The impulses are recorded in waves. These assume a certain form the rate, height and length varying in different parts of the cerebrum. Age and the degree of consciousness also produce normal variations in the pattern. This test gives valuable information about such abnormal conditions such as tumor, epilepsy, infections and hemorrhages.

The central nervous system is well protected by the rigid skull and the flexible backbone (spinal column). The skull consists of a dome of thin, porous, but strong bones. The bones of the forehead contain the sinuses of the nose. The floor of the skull is composed of somewhat thicker bone and contains more sinuses that connect with the nasal passages. The deeper structures of the ear are embedded in the bones forming the base of the skull. The floor of the skull consists of three irregular depressions that form three descending levels. The fossa in the back of the skull is the largest and the deepest. The cranial nerves arise from different parts of the brain and emerge through various bony canals and openings of the skull. Inside this had shall three separate tissues provide additional coverings for the brain and spinal cord. The outer most dura matter, consists of layers of dense, fibrous material. One layer of the dura adheres tightly to the bones of the skull. The other covers the brain and the spinal cord, forming a tough, sac-like

structure. Within the skull itself the dura is folded into partitions which separate and support the various parts of the brain. One such fold is called the flax cerebri, it divides the cerebral hemispheres into right and left halves. Another fold the tentorium, separates the back fossa from the vault of the skull. It provides a horizontal support for the back part of the brain and separate that part from the cerebellum. Between the layers of the dura are large blood vessels called venous. Sinuses which collect blood from the brain and return it to the heart. The middle of the three covering tissues is a delicate membrane called the arachnoid (which means cobweb like), a layer that encloses the brain and the spinal cord in a loose-fitting sack. The space below this layer is the subarachnoid space. The third covering is a thin delicate sheet that follows closely all the irregular surfaces and fissures of the brain and spinal cord. This is called the piameter and is next to the nerve tissue itself. Between the arachnoid and the pia mater circulates the cerebrospinal fluid which acts as a shock absorber for the central nervous system. Also it probably helps in nourishing the nerve tissue itself. This clear, watery looking fluid—formed within certain cavities of the brain—flows out from space. Then it circulates over the brain and spinal cord before it is absorbed back into the blood stream when the flow or absorption of the fluid is impaired, It accumulates in large quantities. The spinal fluid is affected by various disorders and is easily drawn off to be examined for diagnostic purposes it is above normal in some conditions involving brain tumors brain hemorrhage, and certain infections.

2

Memory—Meaning and Nature

“Learning without thought is labour lost,
thought without learning is perilous”

— **Confucius**

Memory in the abstract and most general sense is the characteristic of living organisms, in virtue of which what they experience leaves behind effects which modify future experience and behaviour in virtue of which they have a history and that history is recorded in themselves. This is how James Dever defines memory in his dictionary of psychology. Memory is that characteristic which underlies all learning, the essential feature of which is retention. In a narrow sense memory covers recall and recognition, what we call remembering. The above remarks refer to the term memory as used in psychology in the abstract and most general sense. Stout defines memory as “The ideal revival, so far as ideal revival is merely reproduction, in which the objects of past experience are reinstated as far as possible in the order and manner of their original occurrence”. Woodworth and Marquis says, “Memory consists in remembering what has previously been learned”. Edgell

uses the word memory as equivalent to retentiveness, the ability to retain being a step to reproduce and recall. Our mind has the power of conserving experiences and mentally reviving them whenever such an activity helps the onward progress of the life muscle. The conserved experience has unity, an organisation of its own and it colours our present experience. Stout calls such conserved experience a 'Mental disposition' and Nunn calls it 'engram-complex' or simply 'Engrams'. Accordingly it is upon this power that all mental growth and modification of behaviour, experience or learning depend and this power is generally denoted by 'Mueme'. But in order to be more explicit we shall prefer what Woodworth has said, "Memory consists in learning retaining and remembering retention is inactive and remembering is active and both are included under the general head of memory. There are several ways of remembering the two principal ones being recalling and recognizing. Thus remembering consists of recalling and recognising. We may note the factors of memory. (1) Registration or the reception of impressions through learning. (2) Retention or conserving of past experience. (3) Remembering consists of (a) recall or reproduction of past experiences (b) recognition of identifying the recalled ideas as those already experienced. Thus memory has three factors (1) Learning or registration (2) retention and (3) remembering— recalling and recognising. These factors are known as part processes of memory. Let us explain them. Experience through learning is registered, therefore registration is merely the existence of experience, without which nothing can be retained or remembered. Registered or learned experiences must be retained or conserved in one form or another. There can be individual differences with regard to memory. There are individuals who cannot register impressions as soon as others do, there are others who are at a loss to note the fact that they forget what

they have learned very soon, while others are able to retain much and remember much in the form of recall and recognition, to the wonder of other persons. Besides there are persons who have got a good memory for names, figures and dates and can recall and recognize them very well, and there are persons who cannot do so despite having a good memory for facts, events and occurrences. There are persons like Macaulay who have a wonderful memory for retaining and recalling things in the same sequence and order as they were seen when they were learned, memorized or registered. Memory is said to develop upto the age of 25 after which it remains what it is. But the childhood memories are very easily recounted even by old men, who have lost the power and ability to remember new impressions. Why it is so? Possibly in childhood some aspects of memory such as learning lines of poetry, dates etc. are stronger because of limited intellectual scope, the adults have various interests in life and are often unmindful of various impressions, while children have their interests and attention engrossed in a very few things. Besides, child memories are first impressions on which the apperceptive masses are built.

Characteristics of Good and Bad Memory

We call a memory good if relevant details are remembered with ease speed and accuracy. According to Stout there are four marks of good memory 1. Rapidity, 2. Length of time, 3. Promptness, 4. Accuracy with regard to different part processes of memory. People having a good memory can learn quickly easily and rapidly and they can remember an experience rapidly. The second mark of good memory is the length of time during which the power of recalling and recognising lasts without being refreshed. A person having a good memory must be able to remember things learned without reviewing

them within a considerably long period. The third mark of a good memory is the rapidity and promptness with which things once learned are remembered recalled and recognised.. The fourth mark is the accuracy which is manifested in the process of remembering. A man with good memory must be able to recall and recognize things, persons ideas etc. accurately with all details. Some psychologists add one more mark *i.e.*, serviceableness of what is remembered. When relevant aspect of things learned are remembered, they are serviceable and useful for the occasions they are required for. Thus good memory must be selective and directed to a purpose.

Many factors contribute to good memory. Four factors are responsible for good memory. 1. Good health, 2. Attention, 3. Vivid and distinct impressions, 4. Repetition.

The first factor *i.e.*, good health, helps memory. The retentive part processes of memory is biological and is thus inherited and cannot be improved. Though we cannot improve it, yet we can at least keep it intact through good health. By bad health impressions or traces called memory images may be affected and through ill health they may be effected a bedimmed. Mental vigour fresh air keep our memory powerful and helps us to remember things better. The second important factor of good memory is attention. The power of attention in learning is the most important condition of a good memory, a psychologist has remarked, "Interest is the mother of attention and attention is the mother of memory. If you would secure memory, you must first catch the mother and the grandmother. Deep interest is required for being attentive to a particular thing to being learned otherwise our mind would go wandering. It is important to hold the attention of the child by creating and arousing his interest. The third pre-requisite of good

memory is the vivid and distinct impressions received while memorizing a particular thing, so that it may be remembered for a long time. "The more intense and vivacious the impressions, the longer it is remembered". The fourth condition of good memory is repetition and timely review of the thing learned. Frequent and regular repetitions help good memory. For efficient remembering repetition is an important factor. But repetition should be accompanied by proper understanding interest and concentration of attention. Repetition of new things recently learnt help to remember them and strengthen dispositions, "Practice makes a man perfect" is a well known maxim. Through repetitions new things known or learnt get fixed up. In order to avoid monotony several new forms of repetition can be thought out. Repetition helps retention and consolidation. Repetition means bringing into attention again and again the items which we wish to be associated and exercising that association. Experimental data indicate that items repeated more often are recalled and recognised longer than those repeated less often. Young children have a tendency to repeat the familiar, they have a strong impulses or motivation to repeat rhymes, tables and lesson, from their text books. We should therefore take advantage of this impulses of the children and turn it to a useful account by enabling them to learn some useful things by heart. But learning by heart should be accompanied by understanding and interest. There must be a genuine motive to learn.

Whatever is learnt without understanding is futile as is found in some cases when students cram answers to questions at the time of examination and then forget them completely. There must be concentration of attention on the subject. But there arises a question should repetition be spaced? Experiments carried on 'Spaced repetition' indicate that a daily programme of

short periods in which topics can be repeated frequently is better than a prolonged single period. Spaced repetition is superior to unspaced repetition on the ground that in the former case the attention does not flag the impressions received become clear and more lasting fatigue is voided and interest is sustained. The period of rest that intervenes between two repetitions, provides a pause of rest to the conscious mind and enables the material learnt before to get fixed up in the unconscious mind. Thus spaced learning is both efficient and economical. There arises another question is the whole method superior to the part method in repetition?

Several experiments have been made in this connection and they all prove that whole method in most cases, is superior to the part method. According to information supplied by Woodworth in committing a poem to memory, it is more economical to go through the whole poem again and again than to learn it part by part. A poem of 240 lines was given to a young man to study by the whole method and similarly another 240 lines of the same poem given to him to study by the part method. Sitting at about 35 minutes each day thrice daily and thus cramed the poem by the whole method in ten days a taking all together only 348 minutes, while he learnt the other piece of the poem by the part method memorising 30 lines in 12 days taking 431 minutes thus there was a saving of 83 minutes or 20% by the whole method. This experiment contradicts the conclusions of space repetition. As a matter of fact spacing should be in time and not the material as is hinted by the above material. Even in the whole method spacing was allowed as far as time was concerned. The contention is about the prolonged time given to the study. The Youngman in question gave spaces of 35 minutes but no spaces in the line, he learnt the poem by the whole method.

According to Woodworth factors of advantage involved are 1. Interest, 2. Attention, 3. Confidence, 4. Recency of experience 5. Meaning, 6. Organisation of the subject matter. All these factors supplement and support repetitions. I wish to describe and examine the part—processes of memory a bit more closely. Since memory involves learning retaining and remembering. Let me take the first process also known as registration or fixation. Economy in memorizing or registering impressions can be secured by a proper management of the conditions of efficient learning. Such as 1. good physical health, 2. freedom from fatigue and 3. worry, 4. attention, 5. interest, 6. vividness of impressions 7. repetition, 8, giving experiences and verbal materials rich in meaning, 9. spaced repetition and 10. memorising by suitable methods.

Memorising is more efficient if the subject observes the distinguishing characteristics of the distinguishing meanings. Recitation is superior to passive reading for economy in memorizing and efficiency in retention. The advantages of recitation depend upon better opportunities for observation and reinforcement. Memorising by spaced repetitions requires fewer trials than by unspaced repetitions. The above points indicate that registration or fixation can be secured by proper management of the conditions of efficient learning the conditions of efficient learning and the best methods and there should be a definite purpose in all learning and memorising. For permanent memory, the matter should be repeated very frequently through recitation by giving proper method. The multiple sense appeal is also an important aid to effective memorising and fixation of material stimuli, which appeal to more than one sense organ are perceived and remembered better.

Anything memorised or learnt is retained by the mind in the form of psychological or physiological dispositions.

Retention does not imply continuous activity but rather a modification of the structure of the brain called memory trace. Retention can be demonstrated only by the fact of remembering *i.e.*, recalling and recognizing of memory traces or impression registered or fixed up in the brain. By means of relearning tests, recall tests, and recognition tests, it is possible to measure the retentive power of a man. Retention decreases with the passage of time between learning and remembering. The loss is very rapid at first but it decreases with the passage of time. Retention is a physiological process involving nervous dispositions. Retentive capacity is native, biological or hereditary and therefore it cannot be improved by training. Physiological factors are beyond our direct control thus the memory traces which are left in the brain paths cannot be improved. People therefore must be led away by Charlatans selling drugs to improve their retentive power. The best thing to do is to improve the general bodily tone and factors that influence retentiveness such as 1. age, 2. fatigue, 3. illness, 4. poison and drugs. Individual differences lie in these factors. Like intelligence retention is a Biological factor. It depends upon the quality inherited from the parents. Certain yogic practices and techniques are found to be capable of influencing it.

Recall and recognition are said to be two principal ways of remembering. "Recognition is remembering something that is present" while recall is remembering something that is not present. By 'Present' is meant here presented to the senses". For example, A person stands before you, you recognise his face and recall his name. Thus recall is mental revival of past experiences. Full recall requires the reproduction of the material. Sometimes the recall may be either spontaneous or deliberate. In day-dreaming or reverie trains of impressions come forth spontaneously. Without any effort one is able to recall memory traces one after another. A better example of spontaneous recall is

manifested in after dinner hours when some persons recall past experiences, hopes, disappointments, joys and sorrows of life without any effort on their part. But deliberate recall consists in recalling the past impressions with effort, such as in meeting a new situation, solving a new problems or making a new adjustment. Thus in deliberate recall we have to select the pertinent impressions experiences or memory traces which are of use for dealing with the situation, problem or adjustment. At the time of examination a student selects particular traces from among the host of traces while answering a particular question recall may give a distorted. Incomplete and sometimes a false reproduction of the original. The limitations are due both to inadequate learning and to difficulties in the production of recall. Experimental data indicate that in the recall of nonsense figures, persons tend to recall a word standing for a single general idea, and forget the details of the actual figure. The reproduction is often distorted to conform to the persons general idea. The same sort of limitations are seen in the legal testimony of witness. When the details of the original event are not specifically observed, the recall may be hazy incomplete or false and the opposite legal advisers take advantage of these limitations. The same thing can be noted in the incomplete and wrong answers of the child. Interference with recall may occur even when retention is adequate. Such interference results from emotion or from a strong tendency to recall some other incorrect response. In order to improve the recall or reproduction of retained material some important Yogis practice can be employed.

Recognition is the remembering of something present identifying it as something we have previously perceived. Full recognition involves perception. To recognise is, therefore, to identify an object and place it in ones system of memories, It is knowing the object again and there is an awareness that it is known a

second time. "At its minimum it is simply a feeling of familiarity with the object, at its maximum it is locating the object precisely in your autobiography. In recognition the past experiences are presented to the sense although recognition is simpler than recall, errors may result from failure to distinguish between two similar experiences. Similar faces often confuse us in recognizing a particular person and consequently we suffer from sensory illusions. Thus recognition may not be a complete process of identification. It may have only some degree of recognition. 1. a vague feeling of familiarity and 2. a very definite identification. Recognition may be definite or indefinite. In the former case we may be conscious of the fact that we have been to the place under reference or seen the individual referred to, but familiarity is vague and we are not able to recognise the details of the experiences of the place or the person. In the latter case we are definite and are able to locate the place or the person in our past experiences or memory traces. In both the cases, the process of recognising is apparent, but it differs in degree. Sometimes recognition and perception are referred to as the same process of mind.

Association is supposed to be the most important factors in efficient recall. Association of ideas is a well known principle by which one idea helps us to bring back to consciousness another idea with which it was previously connected in one way or another. Association of ideas involves certain factors such as recency, frequency and intensity of experiences and also the mood, attitude and temperament of the individual. The word day brings forth the word night because of frequency of association or connection, when we are in a sorrowful mood, we recall gloomy ideas and when we are in a happy frame of mind we recall sunny thoughts". There are different laws of association such as 1. The law of congruity, 2. The law of similarity and, 3. The law of contrast. The first law states that the two experiences

which occur one after another get associated with each other in such a way that when one is recalled, the other is also recalled. The ringing of the bell reminds the students to get out of the classrooms and go home. A dog may remind us of the child bitten by him, such associations are contiguous because incidents connected in them happened at the same time or one after another. The second law states that similar events and facts become linked up with each other so that the one easily recalls the other. Two similar faces may be linked up together, one may remind the other. A story may remind another story having the same plot. There are instances of association by similarity. The law of contrast states that the contrasted characters get associated with each other so that the one reminds the other that stands in contrast to it. A virtuous man may remind us of a vicious man.

Robert Lynd in his essay on 'Forgetting' pays a light hearted tribute to the efficiency of human memory. He is of the view that all of us complain on forgetfulness. We often overlook the tremendous efficiency of the human memory. Our mind remembers a lot of information. It retains the names and addresses of our so many friends. We also remember quite a few telephone numbers. Besides this, our mind is crowded with the names of film stars, players and other celebrities. But in the same breath, the writer admits the forgetful nature of human mind. Many people forget their belongings in trains, buses, cabs etc. The most often forgotten things include umbrellas, walking sticks, spectacles, pens etc. The writer confesses that he himself is guilty of forgetting in posting letters. Most people, he says, forget to take their medicines in time. Even very methodical and meticulous people are guilty of this act.

Forgetting means a failure to recall and recognise an idea or group of ideas. It is the failure of the individual to revive in consciousness an idea or a group of ideas without the help of the original stimulus. Old

people often forget recent things. Forgetting is not wholly a disadvantage. To some extent forgetting is a restorative process, a getting back to normal, biological forgetting. Forgetting is very essential too. If irrelevant details are forgotten, the relevant ones are remembered better. Learning the new interferes with the retention of the old and recall of the old interferes with the learning of the new. According to Dr. Adam's "True learning is judicious forgetting". Freudian forgetting or active forgetting is that kind of forgetting which denotes that we forget things in spite of our effort to remember them, the simple reason for this being the unpleasantness or pain likely to be caused by remembering them. The second kind of forgetting is called passive forgetting, which means fading away of certain memory traces for want of interest or exercise. Passive forgetting is distinguished from active forgetting in the sense that the latter implies failure to recall a thing or an incident because of its unpleasant association. Causes of forgetting are many 1. disuse which is a Biological and a fundamental causes, 2. doubt, 3. distraction, 4. fatigue, 5. emotional disturbances, 6. unpleasant mode of experience of thought etc. The memory traces often get dim and are sometimes effected because of disuse memory traces get disrupted. Doubts often clash with memory traces. Under the stress of emotional states like fear, anxiety, worry etc. well prepared statements or lessons are forgotten. Fatigue overwhelms a man physically and the toxic state disturbs the mind. There are two important theories of forgetting 1. atrophy, 2. interference.

Forgetting cannot be caused by the mere lapse of time. It must be due to the processes which go on during the time. Interference from new learning may disrupt memory traces. Atrophy or metabolic changes resulting in disuse may also disrupt memory traces. A living organ or tissue condition by the chemical processes of bodily

metabolism. The brain structure which provide the memory traces also undergo metabolic changes. Traces that have been used and inactive for a long time will scarcely be in prime metabolic condition even if no interference has occurred at the behavioural level. Retention is better during sleep than during waking hours presumably because in sleep interference is reduced. This interference is of two types, 1. Direct interference, 2. Indirect interference. Direct interference from learning new responses to the original stimuli produces a marked loss of retention. If the original and the second material are both thoroughly learned, the interference effect can be overcome.

Following are the main disturbances of memory—

1. Amnesia is a partial or total inability to recall past experiences. (a) Anterogate amnesia is for events occurring after a point in time, (b) Retrograde amnesia is for events occurring before a point in time.
2. (a) Paramnesia is falsification of memory by distortion of recall.
(b) Retrospective falsification—memory becomes unintentionally distorted by being filtered through a persons present emotional, cognitive and experimental state.
(c) Confabulation—Unconscious filling of gaps in memory by imagined or untrue experiences that a person believes but that have no basis in fact.
(d) False memory— A persons recollection and belief by the patient of an event that did not actually occur.
3. **Hypermnesia**— Exaggerated degree of retention and recall.

4. **Eidetic Image**—Visual memory of almost hallucinatory vividness.
5. **Screen memory**— A consciously tolerable memory covering for a painful memory.
6. **Repression**— A defense mechanism characterised by unconscious forgetting of unacceptable ideas.
7. **Lethologica**— Temporary inability to remember a name or a proper noun.
8. **Blackout**— Amnesia experienced by alcoholic about behaviour during drinking bouts, usually indicates that reversible brain damage has occurred.

There are four levels of memory.

- (a) **Immediate**— Reproduction or recall of perceived material within seconds to minutes.
- (b) **Recent**— recall of events over past few days.
- (c) **Recent past**— recall of events over past few months.
- (d) **Remote**— recall of events in distant past.

Dissociative Amnesia

The symptom of amnesia is common to dissociative amnesia, dissociative fugue and dissociative identity disorder. Dissociative amnesia is the appropriate diagnosis when the dissociative phenomena are limited to amnesia. Its key symptom is the inability to recall information, usually about stressful or traumatic events in people's lives. A common form of the dissociative amnesia involves amnesia for personal identity but intact memory of general information. This clinical picture is exactly the reverse of the one seen in dementia, in which persons may remember their names but forget

general information such as what they had for lunch. Dissociative amnesia is thought to occur more often in women than in men and more often in young adults than in older adults.

Trausient Global Amnesia is an acute and transient retrograde amnesia that affects recent more than remote memories. Although patients are usually aware of the amnesia, they may still perform highly complex mental and physical acts during the 6 to 24 hours. That transient global amnesia episodes usually last. Transient global amnesia can be differentiated from dissociative amnesia in several ways. Transient global amnesia is associated with an anterograde amnesia during the episode, dissociative amnesia is not. Persons with transient global amnesia tend to be more upset and concerned about the symptoms than are persons with dissociative amnesia. The personal amnesia is lost that of a person with transient global amnesia is retained. The memory loss of a person with dissociative amnesia may be selective for certain areas and usually does not show a temporal gradient the memory loss of a person with transient global amnesia is generalized and remote events are remembered better than recent events. This disorder is most common in persons in their 60's and 70's whereas dissociative amnesia is most common in persons in their 20's to 40's.

3

Why Loss of Memory?

Loss of memory can be a result of brain injury or deterioration, shock fatigue, seriality, drug use, alcoholism, anesthesia, illness or psychoneurotic reaction. Loss of memory may be anterograde in which events following forgotten or restorgrade in which events preceding the causative event are forgotten.

Disorders of memory must have been known to the ancients and are mentioned in several medical texts, but it was not until the close of the 19th century that serious attempts were made to analyze them or to seek their explanation in terms of brain disturbances of the early attempts, the most influential was that of a French psychologist, Armond Ribot who in his "Disease of memory" endeavoured to account for memory loss. The progressive destruction of memory follows a logical order—a law it advances progressively from the unstable to the stable. It begins with the most recent recollections, which being lightly impressed upon the nervous elements. The statement amounting to Ribot's law of regression or progressive destruction of memory enjoyed a considerable popularity and is not without contemporary influence. The idea has been applied with some success to phenomena as diverse as the breakdown

of memory for language in a disorder called Aphasia and the gradual return of memory after brain concussion. It also helped to strengthen the belief that the neural basis of memory undergoes progressive strengthening or consolidation as a function of time. Yet students of retrograde amnesia agree that Ribot's principle admits of many exceptions. A Russian psychiatrist Sergey Korsakov, may have been the first to recognise that amnesia need not be associated with dementia (or loss of the ability to reason) as Ribot and many others had supposed. Korsakov described severe but relatively specific Amnesia who showed no obvious evidence of shortcoming in intelligence and judgement. This disturbance now called the Korsakov syndrome has been reported for a variety of brain disorders aside from alcoholism and appears to result from damage in a relatively localised part of the brain. The neurologist approach may be combined with evidence of psychopathology to enrich understanding of memory function. Thus a French neurologist Piere Janet, described amnesia sufferers those observed by Korsakov but who gave no evidence of underlying brain disease. Janet also studied people who had lost memory of extensive periods in the past, also without evidence of organic disorder. He was led to regard these amnesia as hysterical explaining them in terms of dissociations a selective loss of access to specific memory data that seem to hold some degree of emotional significance. Freud regarded hysterical amnesia as arising from a protective activity or defense mechanism against unpleasant recollections, he came to call this sort of forgetting repression and he later invoked it to account for the typical inability of adults to recollect their earlier years (infantile amnesia). He held that all forms of psychogenic after prolonged sessions of talking defect of memory is one of the most frequently observed symptoms of impaired brain function. It may be transitory as after

an alcoholic bout or any epileptic seizure or it may be enduring as after severe head injury or in association with brain disease. When there is impaired ability to store memories of new experiences (up to total loss of memory for recent events) the defect is termed Retrograde amnesia. Retrograde loss may progressively abate or shrink if recovery begins, or it may gradually enlarge in scope as in cases of progressive brain disease. Minor grades of memory defects are not uncommon after effects of severe head injury or infections, typically they are shown in forgetfulness about recent events.

(a) Transient Global Amnesia— It consists of an abrupt loss of memory lasting from a few seconds to a few hours, without loss of consciousness or other evidence of impairment. The individual is virtually unable to store new experience, suffering permanent absence of memory for the period of the attack. There is also a retrograde loss that may extend up to years preceding the attack. This deficit shrinks rapidly in the course of recovery but leaves a gap that seldom exceeds the three quarters of an hour before onset. Thus the person is left with persisting memory gap only for what happened during the attack itself and in a short period immediately preceding. Such attack may be recurrent are thought to result from transient reduction in blood supply in specific brain regions and sometimes presage a stroke.

(b) Traumatic Amnesia— On recovery of consciousness after trauma, a person who has been knocked out by a blow on the head at first typically is dazed, confused and imperfectly aware of his whereabouts and circumstances. This so called posttraumatic confusional state may last for an hour or so upto several days or weeks. While in this condition the individual appears on recovery he commonly reports total amnesia for the period of altered consciousness. He also is apt to show

retrograde amnesia that may extend over brief or quite long periods into the past, the duration seeming to depend on such factors as severity of injury and the sufferer's age. In the gradual course of recovery memories are often reported to return in strict chronological sequence from the most remote to the most recent as in Ribot's Law. Yet this is by no means always the case. Memories seem often to return haphazardly and to become gradually inter related in the appropriate time sequence. The amnesia that remains seldom involves more than the events that occurred shortly before the accident. It is thought by some that after recovery the overall period of time for which there is no recollection may indicate the degree of severity of the head injury.

Post traumatic amnesia is sometimes observed after mild head injury without loss of consciousness and with no apparent change in ordinary behaviour. A football player who is dazed but not knocked out by a blow on the head, for example, may continue to play and even score but later have no memory whatever of the part of the game that followed his injury.

(c) Memory defect after electroconvulsive Therapy—

Electro convulsive treatments have been widely used in depressed people. A seizure of convulsion is induced by passing current through electrodes placed on the forehead. Each treatment is followed by a period of confusion for which the person is subsequently amnesic. At this time there is also rapidly abating amnesia of some seconds for events that immediately precede that shock. After a number of treatments, however, some individuals complain of more persistent memory defects. These difficulties nearly always clear up with in a few weeks after treatment ends. Experimental evidence tentatively suggests that electro shock administered to only one side of the head produce therapeutic results equal to

those of the standard procedure but with significantly reduced impairment of memory.

(d) Korsakoff's syndrome—Korsakoff's psychosis or syndrome occurs in a wide variety of toxic or infections, brain illness as well as in association with such nutritional disorders as deficiency of B vitamins. The syndrome has also been observed among people with cerebral tumors especially those involving third ventricle (one of the fluid-filled cavities in the brain). The main psychological feature is gross defect in recent memory, sometimes so severe as to produce moment to moment consciousness. Such people can store new information only for a few seconds and report no continuity between one experience and the next. They seem incapable of learning, even after many trials and repetitions. Although cases of such severity are relatively rare. The ability to store experience only briefly is quite characteristic of Korsakoff's syndrome. In addition sufferers almost always show evidence of retrograde amnesia that can span as little as a few weeks past to as much as 15 or 20 years before on set of the disorder. These extensive retrograde amnesia are seldom total or "Uniform" and "Islands" of memory often can be found by persistent interrogation. The persons memory functions depends heavily on circumstances for example a man with Korsakoff's syndrome who recognizes his wife instantly when she visits may in her absence vehemently deny that he is married. Commonly there is disorientation in place and time the individual often underestimates his own age, sometimes grossly. Some sufferers characteristically confabulate is they remember experiences they never personally had or they falsely localize their memories in time. Not uncommonly these people deny being ill or that their memory is in any way affected.

(e) Persistent defect after encephalitis— Attention repeatedly has been drawn to severe and persistent memory defect following attacks of a form of brain inflammation called acute inclusion, body encephalitis. The individuals behaviour closely resembles that of Korsakoff's syndrome except that his insight into the memory disorders is usually good and confabulation is infrequent or absent. Indeed the memory disorder is sometimes so limited and specific as to raise the possibility of psychogenic (hysterical) amnesia. In cases of this kind there may be little or no impairment of intelligence or judgement.

(f) Perfect following Brain surgery— Surgical operations on the sides of the brain (the temporal lobes) to remove tissues that produce symptoms of epilepsy are routine. While good result are often achieved a degree of memory defect ensues. Operations on the dominant (usually left) temporal lobe tend to hamper one's ability to learn, verbal information by hearing or reading usually observable before surgery. The defect tends to be more marked after operation and has been reported to persist for upto three years before eventual recovery. Operations on one temporal lobe when there is unsuspected damage to its fellow on the other side of the brain (or both lobes) In surgery very rarely undertaken, produce severe and persistent general memory defect.

(g) Diffuse brain disorder— Some memory failure is almost universal during old age, particularly in the reduced ability to learn. Many people of advanced age show adequate memory function. If they suffer no brain disease. Impairment of memory is a characteristic early sign of senility as well as of hardening of the brain arteries at any age with exaggerated forgetfulness for recent events and progressive failure in memory for experiences that preceded the disorder. When the

symptoms are almost those of Korsakoff's syndrome the disturbance is called presbyophrenia. In most cases amnesia is complicated by failure in judgement and change in character. It has been suggested that severe memory defect in an elderly person carried a poor prognosis being related to such factors as a shortened survival time and an increased death rate. A Swiss psychiatrist, Eugene Bleuler held that amnesia results only from a diffuse disorder of the outer layers (cortex) of the brain and suggested that memory depends on the integrity of the cortex as a whole and highly specific amnesia symptoms principally stem from damage to such brain structures as the mamillary bodies. Circumscribed parts of the thalamus and of the temporal lobe (*i.e.*, the hippocampus) while the ability to store new experience (and perhaps to retrieve well-established memories) appear to depend on a distinct neural system involving temporal cortex and limited part of thalamus and hypothalamus.

(h) Psychogenic Amnesia— Some forms of amnesia appear to be quite different from those associated with detectable injury or disease of the brain. These comprise first amnesia that can be induced in apparently normal individuals by means of suggestion under hypnosis and secondly amnesia that arise spontaneously in relation to acute conflict or stress and hysterical. Such amnesia is reversible. Memory of a hypnotic trance is often vague and fragmentary as in awakening from an ordinary dream. This may be due in part to defect of registration during the period of altered consciousness. At the same time very much more complete posthypnotic amnesia can be induced if an individual is told that when he awakens he will remember nothing of what went on during the period of hypnosis. This is clearly a psychogenic phenomenon,

memory is fully regained if the patient is rehypnotised and an appropriate counter suggestion given.

(i) Hysterical amnesia is of two main types—one involves the failure to recall particular past events or those falling within a particular period of the patient's life. This is essentially retrograde amnesia, but it does not appear to depend upon an actual brain disorder. In the second type there is failure to register, and accordingly later to recollect—current events in the patient's ongoing life. This is essentially anterograde amnesia and is an ostensibly psychogenic phenomenon. Hysterical amnesia differs from organic amnesia in important respects. As a rule it is sharply bounded, relating only to particular memories or group of memories, often of direct or indirect emotional significance. It is also usually motivated in that it can be understood in terms of the patient's needs or conflicts.

The fugue is a condition in which the individual wanders away from his home or place of work for periods of hours, days or even weeks. There are cases when individuals remained away from home for many months. But on their return it was found that they have no memory of the period of absence. Psychoanalysts see in the fugue a symbolic escape from severe emotional conflicts.

A German psychiatrist, Krepelin introduced the term *paramnesia* in 1886 to denote errors of memory. He distinguished three main varieties one is called simple memory deceptions as when one remembers as genuine those events in dream. This is not uncommon among confused and amnesic people and also occurs in paranoid states. Krepelin also wrote of associative memory deceptions, as when a person meeting someone for the first time claims to have seen him on previous occasions. This has been renamed reduplicative

paramnesia in which a novel situation is experienced as duplicating an earlier situation in every detail.

Then there is reduplicative paramnesia. Reduplication is observed mainly among acutely confused or severely amnesia people. For example, a patient may say that he has been in one or more hospitals that are very similar to the present location and that all bear the same name. The effect also can be induced by showing the person an object such as a picture and by testing him for recognition of the same picture a few minutes later. He is apt to say that he has seen a similar picture but definitely not the one now being shown. This effect appears to depend on loss of a sense of familiarity and on failure to treat a single object seen on a number of occasions as one and the same. It has been reported that reduplication of this kind is typically associated with confabulation speech disorder disorientation and denial of illness.

Confabulation— Spurious memories or fabrications are very common in psychiatric disorders and may take on an expansive and grandiose character. They may also embody obvious elements from fantasy and dream. At a more realistic level, the production of false memories is best studied among suffers Korsakoff's syndrome for whom consciousness and reasoning remain clean. When asked what he did on the previous day such a person may give a detailed account of typical day in his life several months earlier. Evidently his retrograde amnesia and his disorientation in time provide fertile soil for false reminiscence. Confabulation once was regarded as ones reaction to the social embarrassment produced by a memory defect.

Thus head injuries (both closed and penetrating) can result in a wide range of neuro psychiatric symptoms,

including dementia, depression, personality changes and amnesic disorders.

Fatigue is an important factor causing loss of efficiency in learning. Fatigue is caused when learning is continued beyond a certain point. It may be physiological or psychological i.e., bodily or mental. The mechanical type of work brings about muscular fatigue and when one loses interest in the work and feels annoyed and bored one is said to be mentally fatigued. The physiological type of a fatigue results at times in physiological fatigue. Thus bodily fatigues is due to changes in muscles caused by continued mechanical work and mental fatigue is due to loss of interest motive desire etc. along with changes in brain functions due to persistent local or general according to a particular part of the bodily system. While accounting for the onset of fatigue three factors are important (a) the exhausting of energy, (b) the presence of toxic waste products, (c) loss of oxygen.

These factors offer a physiological explanation of fatigue. Three brain structures are critical to the formation of memories. The medial temporal lobe, certain diencephalic nuclei and the basal forebrain. The medial temporal lobe houses the hippocampus, an elongated, highly repetitive network. The amygdala is adjacent to the anterior end of the hippocampus. The amygdala has been suggested to rate the emotional importance of an experience and to activate the level of hippocampal activity accordingly. Thus an emotionally intense experience is indelibly etched in memory but indifferent stimuli are quickly disregarded. The most famous human subject in the study of memory is H.M. a man with intractable epilepsy, to alleviate which both his hippocampus and amygdala were surgically removed. The epilepsy was controlled but he was left with a complete inability to form and recall memories of facts.

The finding that H.M.'s learning and memory skills were relatively preserved has led to the suggestion that declarative or factual memory may be separate within the brain from procedural or skill related memory. A complementary deficit in procedural memory with preservation of declarative memory may be seen in people with Parkinson's disease, in which dopaminergic neurons of the nigrostriatal tract degenerate. Within the diencephalon, the dorsal medial nucleus of the thalamus and the mammillary bodies appear necessary for memory formation. These two structures are damaged in thiamine deficiency states usually seen in chronic alcoholics, and their inactivation is associated with Korsakoff's syndrome. This syndrome is characterised by severe inability to form new memories and inability to recall remote memories.

The most common clinical disorder of memory is Alzheimer's disease. Alzheimer's disease is characterised pathologically by the degeneration of neurons and their replacement by senile plaques and neurofibrillary tangles. Clinicopathological studies have suggested that the cognitive decline is best correlated with the loss of synapses. Initially, the parietal and temporal lobes are affected with relative sparing of the frontal lobes. This pattern of degeneration correlates with the early loss of memory which is largely a temporal lobe function. Also syntactical language comprehension and visuospatial organisation, functions that rely heavily on the parietal lobe, are impaired early in the course of Alzheimer's disease. In contrast personality changes, which reflect frontal lobe function are relatively late consequences of Alzheimer's disease. Memory loss can also result from disorders of the subcortical gray matter structures specifically the basal ganglia and the brain stem nuclei, from disease of the white matter or from disorders that affect both white and gray matter. The

limbic system is in direct neural contact with the thalamus and hypothalamus and has many closely related function. Electric stimulation of various areas of the limbic system has produced changes in blood pressure, heart rate, sexual behaviour, eating patterns and many other physiological responses. It is believed that excitation of limbic areas causes stimulation of the lower brain centres, especially the hypothalamus. It has become apparent in only the last decade that the limbic system is the memory area of emotions. As certain situations evoke particular emotions, the limbic system provides the appropriate memories and synchronises feelings with physiological responses. If a child is afraid of the dark, this memory pattern of fear takes form in the limbic cortex, there after (perhaps into adulthood) a dark house or dark street, for example, may trigger this memory, complete with rapid heart beat, increased breathing rate, or feelings of fear or anxiety. Largely because of the action of the limbic system, a bad experience with drugs can be stored and triggered in similar future circumstances a person may thus be prone to have more negative drug experiences. The cerebral cortex, the most recent evolutionary development of the vertebrate nervous system is divided into number of areas according to function. The two association areas are responsible for responding logically to time environment and social climate. The temporal association areas are involved in learning processes and memory, the frontal association areas is especially implicated in drug use.

Thus loss of memory can be the result of head injury, spinal injury, shock, fatigue, long illness, drugs abuse, alcoholism, and psychoneurotic reaction.

4

Yoga Improves Memory

Interest, observation and repetition are involved in efficient memory. Interest is that affective tone of the mind which prompts us to spontaneous activity. It is described as the felt value of an end". Mcdongall says that "interest is latent attention". It is the conative affective disposition determining the cognitive process of attention. Thus interest means the object of interest such as when we say, "these are my interests". In the second sense it indicate the process such, "He is looking at it with interest". Thirdly it is used in the sense that it is the enduring structure of the mind such as when we say, 'that' he has interest in drama. It is the structure of the mind that is referred to thus according to Mcdougall interest is latent attention. Interest is derived from different sources. The primary source our inborn and natural disposition *i.e.*, urges, drives, instincts and desires. Our instincts such as curiosity, acquisitiveness, and self-expression are powerful sources of interest. Our natural and direct types of interest depend upon those objects which are connected with our innate dispositions. Such as sentiments and complexes. Our original nature inclines us by birth to be interested in certain things. Children have an instinctive interest in being curious, self assertive and acquisitive. Our interest

is also determined by our attitudes, moods temperaments and acquired tendencies. When we have a friendly attitude, we attend to the good points of a particular person. When we are in a mood of worry or anxiety we are interested in things that betray impending dangers. When we are suffering from melancholy we are temperamentally interested in pessimistic talks. Memory and observation are inseparably bound with each other. One cannot remember a thing clearly if he has not observed the thing. At the same time it is also difficult to observe any object if one is not interested in it.

Repetition/plays a vital role in improving memory but repetition should be accompanied by proper understanding interest and concentration. Repetition of new things recently learnt help to remember them and strengthen dispositions. Through repetition new things known or learnt get fixed up. Repetition means bringing into attention again and again the items which we wish to be associated and exercising that association. Experimental data indicate that items repeated more often are recalled and recognised longer than those repeated less often.

In the galaxy of intellectuals, one of the shining stars in the skies of India is Prof. Upen Baxi Vice Chancellor of Delhi University. He has investigated and researched the various principles of social, economic and global factors in relation to the individual and his growth in society. Her has presented a new thesis. According to him, "Yoga is a reconfiguration of memory in our eternal fight against oblivion". He says there are six types of memory to which Yoga responds. The first is the memory of origin, the second is the memory of purpose, the third is the memory of body, the fourth is the memory of Evil, the fifth is the memory of mission and finally the memory of the future. Memory of origin is the first problem of memory. Origin is accidental but it is the origin of origin

which is not accidental. It is causal and perhaps it is cosmic. If we ask simple question, "What makes us human?" We will have many answers. Scientists will have one, philosophers another, social theorists still another. And religion will provide a whole array of different answers, however Prof. Upen Baxi believes that one important answer lies in Yoga, an answer not to accidental origin but an answer to the origin of origins and that goes by the name of Purusha and Parakriti. Yoga, according to him is an active memory of a great chain of being which has to be recalled in our terrestrial boundaries. The second kind of memory which Yoga summons us to revive, is the memory of purpose, of what the Greeks call the 'Telos'. In the Hindu version of it there are four aims in life. These are Dharma, Artha, Kama, and Moksha. In pursuit of these aims, dilemmas can arise. As the great figure of the Mahabharata, Duryodhana, often used to say, "Jaanaami dharmam, adharmam nacchaamc nivriti". "I know the Dharma but I cannot act upon it or act by it. I know the adharma but I cannot desist from it". The existence or dharma is a different order of reality to the prescription of the four aims of life. Purposes are notorious because they conflict. Purposes conflict even in the Guru. Every where purposes conflict and Yoga is the active memory of the conflict of Dharmic and Adharmic purposes. It is also the means of resolving this order of conflict in other worlds Yoga is the memory of this great Purushartha, this great prexis.

The third kind of memory is the memory of the body, the body as the temple of the spirit, the body as a path, as a medium not as an obstacle. For a true Yogi, body must be a mirror of the soul. The memory of the body stands celebrated in Hatha Yoga and to some extent in Raja Yoga. Care of the body, responsibility towards the body is the basis of Yoga.

The fourth kind of memory is the memory of evil. The evil within us and the evil outside us. "Yoga or Yogic consciousness, educate us about the link between the internal and external evil. A true Yogi does not shun, does not erase, does not obliterate, and does not exercise the memory of evil in the self nor evil in the world. A Yogi who does so is by worldly standards a fraud and an impostor. A true Yogi lives with the memory of evil, lives with the memory of the structure of mega evil which the modern world embodies in the form of torture and tyranny throughout the world in the form of the war machine, in the form of violence and vicious kinds of cruelty throughout the world".

The Great German thinker once said that the history of every civilization is at the very same time the history of barbarism. It seems yoga in the best of its tradition enables us not merely to preserve and but also to confront it with the development of collective spirituality.

The fifth type of memory is the memory of mission. Marx said, "Philosophers have interpreted the world". The task however is to change the world. Maha Yogis have interpreted the world. The task however is to change the world". Maha yogis have interpreted the world. The task today, is to use this ancient wisdom so as to confront the contemporary world challenges. These challenges can be summed up in two simple words, 'Infancy' and 'Stupidity', first let us look at 'Infancy'. While human beings have become scientific giants. They still remain ethical infants. Their politics is the art and science of perpetuating this ethical human infancy. Albert Einstein said towards the end of his life that he now understood why politics is harder than physics

Now let us consider the second word 'Stupidity'. Milen Kundera has said, "Human stupidity does not decrease with expertise in science, technology, with modernity or progress but rather it increases. According

to Prof. Baxi, "deliberate infancy, well nurtured beyond its time together with deliberate stupidity are themselves forms of human evil. Therefore I think that for the whole world there is a great historic importance in the memory of a Yogic mission".

The memory of the future is the final memory. Again Prof. Baxi says, "I believe it is a great mistake to think that memory is only possible to in relation to the past. We curvy the future within ourselves. Today, reality is the memory of tomorrow. Yoga can only become the culture of tomorrow and the day after when we fashion memory with fellowship. Fellowship is fraternity. Fraternity is possible only when we are capable of suffering for those who are actually suffering. We in India are specialists in self-centred suffering because of this we cannot produce a culture of Yoga".

There are many causes of impaired memory or loss of memory. (1) disuse which is biological and a fundamental cause (2) doubt (3) distraction (4) fatigue (5) emotional disturbances and (6) unpleasant mode of experience or thought. The memory traces often get dim and are sometimes effaced because of disuse. The tissues of the body are always undergoing changes. Due to disuse memory traces get disrupted. Doubt often clash with memory traces under the stress of emotional states like fear, anxiety, worry etc. Important incidents are also forgotten. Excessive punishment also disrupt the mental state. During emotional excitement due to the secretion of glands the dominance of the cortex is relaxed and many of the traces get drenched. Fatigue overwhelms a man physically and the toxic state disturbs the mind. A living organ or tissue needs to be maintained in prime condition by the chemical processes of bodily metabolism. The brain structures which provide the memory traces also undergo metabolic changes. Traces that have been unused and inactive for a long time will

scarcely be in prime metabolic condition even if no interference has accrued at the behavioural level.

Yog Nidra or psychic sleep is one of the effective methods of improving memory. Sleep is just a natural affair with everybody. But Yog Nidra or psychic sleep is altogether different from sleep. It is not good to sleep with a mind full of anxieties, worries and sufferings. This sleep does not provide complete rest to the body. Yog Nidra or psychic sleep influences our mind, character and brain. After Yog Nidra one feels energetic strong and refreshed, and the mind will always remain cheerful and peaceful. Just as the body gets rest while sleeping the mind should also get similar rest when we fall into sleep with multifarious negative thoughts (anger, greed, passion, pride etc.). They appear in different shape forms, symbols and dreams. In Yog Nidra one should train one's mind to sleep without diffused thoughts. Yog Nidra is a cooling device. In yog nidra the energy that we spend in wakeful hours, is recouped. Yog Nidra is more efficient and effective form of psychic and physiological rest and rejuvenation than conventional sleep. With the practice of Yog Nidra we restructure and reform our whole personality within. Yog Nidra has the power of penetrating into the subconscious mind. In Yog Nidra, the brain is relaxing and a synchronized activity and initiation of a special type of alpha wave starts dominating in the brain, and the memory cells start improving. Generally people get sound sleep while doing Yoga Nidra. If one sleeps then the required aim of improving memory may not be obtained. Sleep originates from the left side of the brain and mind. When delta waves start emanating, the person falls into a deep sleep. Yog Nidra works at a molecular level every few people know the correct technique of Yog Nidra. The technique is not as simple as it appears to be. The correct technique of Yog Nidra is given below—

On a blanket or hard bed lie down on your back in Shavasana posture. Keep the feet a little apart, hands by your side with the palms turned upwards. Keep your eyes closed throughout. Now relax your whole body and concentrate on your body. Develop your awareness of the body from the top of the head to the toes. Keep your mind tension free and worry free. Now concentrate on each part of the body starting from head. Concentration and rotation on all parts of the body form the first round of Yog Nidra.

Now follows the second round. Start deep breathing. Have slow rhythmic and long breaths. Inhale breath and retain breath for a couple of seconds. Then exhale breath slowly without any jerk or strain. Again have a long deep breath and retain breath for a couple of seconds. Now increase the period of retention of breath. In retention of breath lies the strength of Yog Nidra, and exhale breath slowly and rhythmically. This is the second round of Yog Nidra. Now third round follows. Start slow, long breathing again. Now have a long breath and retain breath for a couple of seconds. During the period of retention chant mentally 'OM' or 'Soham' mantra and repeat this mantra while breathing by chanting mantra the brain becomes very concentrated, and relaxed.

In the fourth round of Yog Nidra again start deep breathing have a long slow breath and retain breath for a couple of seconds. During the period of retention rotate your eye balls and concentrate on brain. Exhale your breath slowly without any jerk or strain. The practice of Yog Nidra can be done any time. Those people who are awfully busy can do Yoga Nidra even seated in a chair in the office. Those who are suffering from impaired memory or loss of memory should do Yog Nidra several times a day.

There are different kinds of Yogas. Although all yogas have a common aim, namely to bring out divinity latent in man. Each kind of Yoga takes the constitutional

differences in man into consideration. Some men are predominantly emotional and feel the woes of suffering humanity. Others are predominantly intellectual and possessed with the curiosity of know more about themselves. Thus have evolved the different systems of Yoga called the Karma Yoga, Bhakti Yoga, Raja Yoga, Kundalini Yoga, Mantra Yoga, Tantra Yoga and surat shabad Yoga.

Since interest, observation and repetition are involved in efficient memory. The Mantra Yoga and Tantra Yoga have proved very effective system for improving the memory. The Mantra Yoga is usually practised in the form of rhythmic repetition which is called Japa of certain hermetic formulae with the help of rosary. The practitioner of Mantra Yoga, repeats the tune of one syllable (Aum) that of two syllables 'Sham' or 'Hamsah'. There are many kind of mantras, the repetition of which yields most diverse results. The four chief categories are Siddha (achieved), Sadhy (instrumental) Sasidha (with achievement), Ripu (enemy)

1. The Siddha (achieved) mantras are regarded as friends and said to bring desired results within a specific time.
2. The instrumental (Sadhya) mantras are compared with faithful servants and are said to bring results after a long time.
3. The mantras with achievement (Sasidha) are compared with temporary help and bear fruit only according to one's merit.
4. The "Enemy" (Ripu) mantras act as enemies and destroy one's achievements or merits.

The greatest of the mantras is the syllable of obeisance, 'Aum', which represents the highest, the most abstract aspect of divinity, Patanjali as well as Manu,

recognise it as the supreme Mantra and as the root of the eternal wisdom. According to Manu, compared with that of other ritual practices, the effect of the ritual of Japa is ten times as great. If done in secret, without outward sound, the effect is one hundred times as great. If done purely mentally a thousand times as great. Like all forms of yoga, the method of mantra yoga has several steps. Some of these steps are common to the other forms and some have different implications.

1. Devotions (bhakti) is the first step, the most pertinent and easiest form of spiritual achievement for the present age of darkness.

2. Purity (suddhi) is of two kinds: outward and inward. Inward purity is the most important in Mantra Yoga.

3. Posture (asana) has been discussed separately in the chapter Asanas.

4. The ways of conduct (achara) are quality of nature. Angelic character (Divya-Achara) is for the seeker in whom the ascending tendency predominates, the right hand way (Dakshina Achara) or way of good actions is for the seeker in whom the expanding tendency predominates. While or the way which makes use of the senses as the means of transgressing them is the way for those in whom the descending tendency predominates.

5. Concentration (Dharana) is of two kinds: outward and inward. Outward concentration is on an external object, a picture, a symbol an image etc. Inward concentration is on the inner world within one's mind.

6. Breath-control (Prana Kriya) helps to control the movements of the mind (discussed in breathing).

7. Gestures (Mudra) there are gestures to represent each deity which is practised with the corresponding mantras.

8. Repetition (Japa) is the repetition of mantras according to the deity worshipped.

9. Contemplation (Dhyana) consists in witnessing within one's mind the shape of the chosed deity.

10. Identification (Samadhi) when the meaning of the Mantra has been realised the mind dissolves into the deity the mantra represents, there remains no notion of a separate seeker, and sought with identification, the seeker has fulfilled his aim.

Since Mantra Yoga implies repeating some sacred mantra, it is something which when repeated and contemplated upon enables the practitioner to reach his goal. Mere repetition of Mantra is of no use. The continued repetition of the Mantra creates certain vibrations in our system. The repetition and recitation of mantra purifies the physical organism. Mantra yoga also frees one from mental tension, stress and emotional imbalance. The correct technique of mantra yoga releases the latent power within. The Mantra Yoga can cure hypertension, hysteria and tone up the muscles nerves of the brain and improve memory. The divine power in any Mantra remains infective unless recited with full faith and will power. According to the science of occultism, in every Mantra these are invisible powers hidden beyond our normal perception. All Mantras can be classified into two sections known as Sakam and Nishkam. Sakam and Nishkam repetition of a Mantra to achieve a particular end for instance to cure oneself of amnesia. While Nishkam Mantra is without any self interest. It is a part of pure devotion. There are four steps in the process of Mantra Yoga. The first is verbal that is

loud chanting of the Mantra. The second is repetition in whispers. This is more powerful than the first one. The third is the mental or Mansik Japa in which we have to meditate on the mental vibrations of the Mantra. Mentally, no sound is to be made. This third step of repetition is more powerful than the first and the second—the fourth step is Ajapa. According to the 'Gita', some practices merge Prana in Apana. Prana is the in going breath, Apana is the outgoing breath "So" represents Prana, and "Ham" represents Apana. Some aspirants merge Prana with Apana i.e., they join "so" with 'Hum' which then becomes 'Shoam'. In the Gita it is mentioned about Ajapa having equalized the Prana and Apana moving in the nasal region. Let the flow of the ingoing and outgoing breath in the nostrils be equal in length and duration. Our two nostrils are associated with Ida, and Pingla. The left nostril is called Ida (moon channel) the right nostril is called Pingla (sun channel). The alternate functioning of Ida and Pingla keeps one away from one's inner consciousness. It is only when Ida and Pingla join each other the self that is Susumna awakens and the process of meditation becomes effective.

The practice of Mantra Yoga should be done either in Siddhasana or in Padmasana. Before doing Mantra Yoga, one should offer a prayer. Then the practitioner rolls his beads. Beads will be helpful in maintaining concentration. A mala has 108 beads with a principal bead which is used for Japa. The mala should be of Tusli or Rudraksha seeds. The correct way of holding mala is to use three fingers only the thumb and the third and fourth fingers only. The second and fifth finger should be avoided. We should rotate the mala forwards not backwards. Then we must not cross the Sumera (principal bead). In Mantra Yoga or Japa Yoga observation and bead—bead—awareness are very important.

Trataka

Trataka implies gazing on a candle or crystal or on any object without winking. Trataka is one of the effective and powerful Yogic Kriyas for obtaining concentration and improving memory. It is our sacred duty to use the mind in a positive way with the help of positive thinking, we can turn any situation howsoever bad to advantage. There is no room for pessimism or boredom. In positive attitude mind does show her three faces. Sometimes Rajas running wild. Sometimes Tamas with dark despair, sometimes Sattva with sweet serenity. Mind is the wildest, fastest, wanderer as mischievous as monkey as cunning as a fox, fickle, whimsical, slippery oscilaing easy to fall into the net of temptations and sexual allurements. If left uncontrolled becomes a source of evil thoughts, morbid feeling, malicious intentions, sinister motives, sensual desires, pervert ideas and ignoble actions which can land man to doom and destruction. Happiness sorrows, realization hallucination, liberation bondage depends on one's mind.

It is the general characteristic of the ordinary mind that it is turned outwards. It takes interest in the objects of the outer world. This interest in the outer world hampers concentration which is required in any human activity. Our concentration is always shifting while we are attending to any object in our consciousness for a long time. It is really changing. The process of concentration has all the three aspects of our conscious life—knowing, feeling, and willing. Modern psychologists have duly recognised the affective and conative aspects of concentration. Concentration is cognitive, affective as well as conative. Through the powers of concentration the details of an object are known better. The sharp concentration influences the memory, concentration brings about motor adjustments such as receptor adjustment, postural adjustment in the central nervous system.



Fig. 4.1: Tratak

The efficacy of Trataka has been established. The correct techniques with different stages is given below—

Technique

Sit in Siddhasana or Padmasana on a folded blanket. Keep your mind relaxed free from worries, anxieties, stress and tension, keep a lighted candle in front of you. Gaze and gaze at the bluish part of the flame of the candle. The gazing should be done steadily without a flicker of the eyelids. This should be done for five minutes first and then extended to half an hour later.

The second stage of the process of Trataka is that one should gaze at the flame of the candle without the

consciousness that one is doing so. Try to imagine sleeping with the eyes open but with the sight fixed on the flame of the candle. The mind should be steady and quiet fixed on the flame.

In the third stage of the process of Trataka, you think that your mind is completely detached from the act of seeing. The eyes remain open, they gaze at the bluish part of the flame but the mind must go inside. When the mind becomes introverted there should be no thought or any desire. The mind must be detached from the external objects. At this stage mind often deceives and goes out to the external objects. But inspite of that one should continue with gazing till the tears trickle down from the eyes. Trataka is very effective yogic exercise for obtaining interest, attention and concentration and for improving memory. Trataka must be practised daily at least for three months.

One of the perennial paths of Yoga is kundalini Yoga or the mystic doctrine of yoga. This kind of Yoga is often misunderstood and misinterpreted. It is usually attributed to occult or psychic powers. This kind of Yoga demands intensive discipline. The roots of Kundalini Yoga stretch back into the past. The word Kundalini implies coiled up as a serpent coils up in sleep. Kundalini suggests the arousing of the body's latent potentialities said to be coiled at the back of the spine. The methods of awakening Kundalini are complex and difficult and can be performed under the supervision of a Guru or expert. Both oriental and occidental psychologists have suggested that Prana and Kundalini can be identified as natural forces. Kundalini represents a force rather than any organ. Although this force is controlled by physical organs. Some scholars interpreting this hidden force regard Kundalini as entirely good others as entirely evil. But like electricity it is neither entirely good nor entirely evil. It depends

how it is applied. Nuclear energy is evil when used for destructive evil purpose. The Kundalini is hidden like a buried treasure which is designed symbolically by circles or wheels or chakras. The seven main chakras are—Muladhara, Svadishtana, Manipura, Anahata, Vishuddha, Ajna, Sahsarara. Each of the chakra has its particular colour, odour, sound, geometrical form. The chakras are the store house of divine powers.

1. Muladhara Chakra (Root Centre)

- a. Location-----Base of the spine.
- b. Form symbols-----Lotus with four petals.
- c. Colour -----Yellow.
- d. Element----- Earth.
- e. Presiding God-----Brahma, the creator.
- f. Goddess-----Dakini

2. Svadishtana Chakra (Pelvic Centre)

- a. Location -----At the genitals.
- b. Form symbol-----Lotus with six petals.
- c. Colour -----White.
- d. Element-----Water.
- e. Presiding God-----Vishnu.
- f. Goddess-----Rakini.

3. Manipura Chakra (Solar Plexus Centre)

- a. Location -----At the solar plexus.
- b. Form-----Lotus with ten petals.
- c. Colour -----Red.
- d. Element----- Fire.
- e. Presiding God----- Rudra.
- f. Goddess-----Lakini.

4. Anhata Chakra (Heart Centre)

- a. Location -----At the Heart.
- b. Form symbol-----Lotus with twelve petals.
- c. Colour -----Blue.
- d. Element-----Air.
- e. Presiding God-----Isha.
- f. Goddess-----Kakini.

5. Vishudha Chakra (Throat Centre)

- a. Location -----At the Throat.
- b. Form-----Lotus with sixteen petals.
- c. Colour -----White.
- d. Element-----Ether.
- e. Presiding God-----Sadashiva.
- f. Goddess-----Sakini.

6. Ajna Chakra (Brow Centre)

- a. Location -----Between the eye brows.
- b. Form-----Lotus with two petals.
- c. Presiding Goddess-----Hakini.
- d. Colour -----snow white

7. Sahsara Chakra (Crown of the Head)

- a. Location -----At the Cerebrum.
- b. Form-----Lotus with a thousand petals.
- c. Presiding God-----Shiva.

When the Kundalini is awakened and forced upward by Yoga, the hidden powers are restored to man. But the process of restoration is a very difficult task. During this process many impediments and obstacles to be faced. The journey is vertically uphill. To become divine man

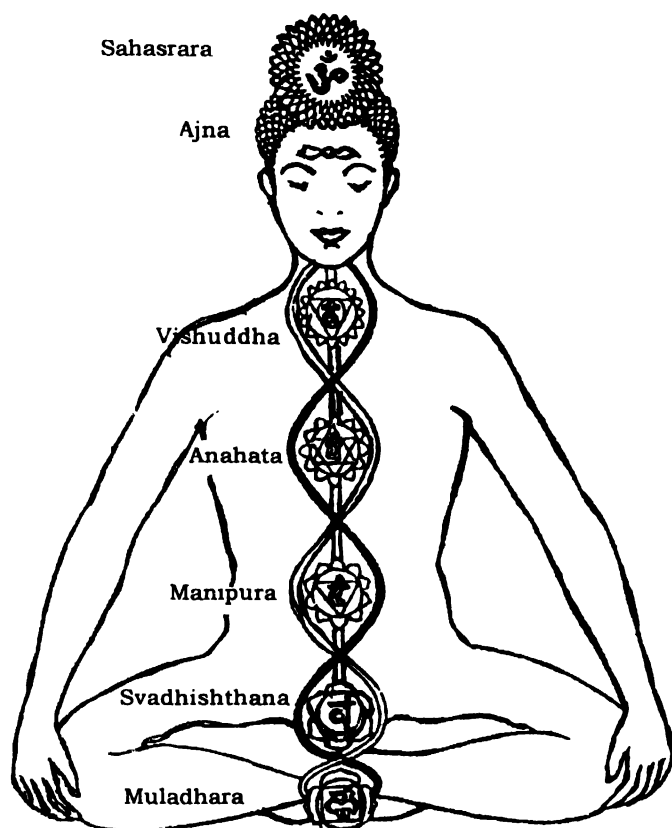


Fig. 4.2: Kundalini Yoga

has to subdue his desires, ego, selfishness, greed, lust and power impulses. The path of Kundalini suggests complete surrender, total purity (inner and outer) and complete transformation. For undertaking the process of Kundalini Yoga self control, restrain in speech, and action spirit of love sacrifice and devotion are essential pre-requisites. The body is to be considered as a divine vehicle by means of which this journey is to be undertaken. This may take many months or years according to the will and practice of the practitioner. By mental concentration and positive aspects of the Prana,

Kundalini is stirred and the current reenters the spinal column called Sushumna which is the gateway to Sahasrara. This process of concentration and accumulation of energy in one chakra and then passing the same to another chakra can be difficult. When the dormant energy is unveiled, new horizons open up and the vision becomes broader and nervous system more sensitive. But sometimes while traversing the path of Kundalini, the practitioner is attracted by the miracles and wonders and he forgets the spiritual goal. I know a number of persons associated with some Ashrams, who hankered after tempting psychic powers and they had to see the tragic doom. The Kundalini Yoga should be done under the guidance of an efficient Guru. He whose heart is pure will find the path of Kundalini the real path and he will be indifferent to the temptations of psychic powers. In Yoga misfortune befalls those who are "Sensation hunters" Kundalini is the secret doctrine of Yoga. The theory of vibration is more popular in the west. Everything in the universe is now considered to be in a state of vibration. Existence is vibration and vibration is existence. The meaning of matter has undergone radical change and is interpreted in terms of energy. The awakening of Kundalini from its latent condition to consciousness is also the purpose of Hatha Yoga.

Another path of Yoga is Tantra Yoga the psychophysical discipline. According to Tantra Yoga, there are six nerve centres (chakras) situated in the different parts of the body. There are also three nadis known as Ida, Pingla and Sushumna which connect these chakras to the brain. The six chakras can be correlated with the six autonomic plexuses of nerves namely lower hypogastric plexus for muladhara chakra upper hypogastric plexus for Svadhishtana Chakra, coeliac plexus for Manipura Chakra, cardiopulmonary plexus for Anahata Chakra cervical plexus hypophyseal system

for AjnaChakra. Each of these plexuses is represented by sympathetic and parasympathetic components. These plexuses send their nerve connections to various organs which act both as sensory and motor nerves. Through these nerves the functions of the organs and viscera are fully regulated. Hence there occurs a local reflex action and also a central action after the sensory input reaches the brain. The Muladhara Chakra is located in the perineum with external genitals as the main organs supplied by the nerves from the inferior hypogastric plexus. This is lowest plexus of the autonomic nervous system with a centre at the spinal cord at the lowest level. Since the external genital organs are richly supplied by both cutaneous (skin) as well as autonomic nerves, they can be activated through voluntary efforts if one can learn the method of doing so. Perhaps no other organ in the body is so richly supplied by both these groups of nerves and hence this most sensitive part of the body especially the genitals has been taken as the sixth sense-organs in Tantra Yoga to activate the entire nervous system of the body. Normally all the sense organs such as eye, ear, nose, tongue, and skin carry the sensory messages to the respective areas of the brain via the reticular activating system and the thalamus nuclei. Such a message produces a series of change in the various centres of the brain leading to the development of the adaptation process in the body by producing changes in neurohumoral and endocrine systems. But according to concepts of Kundalini Yoga man's brain can also receive powerful stimuli through the external genitalia via the spinal cord and thalamus. If one can save the sexual energy through the practice of Brahmacharya, the same can be utilized for the stimulation of various areas of the brain, such as the psychic centre for obtaining more productive and useful results. The Svadisthana Chakra represents upper hypogastro plexus which supplies sympathetic the

bladder, rectum, prostrate and seminal vesicles in males and bladder rectum, uterus and vagina in females. The sympathetic nerve connections are from the sympathetic chains which are connected with the spinal cord. The parasympathetic nerves come from the nerve erigense from the spinal cord. The Manipura Chakra has many nerve connections with the visceral organs. It represents 'Coelic plexus' of nerves with vagus as parasympathetic nerve component and greater and lesser splachnic nerves as sympathetic nerve connections. The Sahasara Chakra is the most important Chakra. It comprises the whole of the cerebral cortex. This is the main area controlling the various levels of consciousness such as the conscious, subconscious and super conscious state. Here the entire Kundalini energy merges at the Sahasara level (psychic centre of cerebral context) to produce its desired results and awakened state. Thus the mind, intellect and all the levels of conscious merge together to make him an enlightened person.

It is essential to do Hatha Yoga if one wants to get desired results in Kundalini Yoga. Hatha Yoga aims at the attainment of physical, mental, and spiritual health. The methods and systems to achieve this aim are different. Some people are inclined to think that Hatha Yoga is the fundamental part of Yoga and it must be practised by every one. Patanjali in his Yog Sutra has describes in details all the steps of Astang yoga. These constitute the important aspects of Hatha Yoga. Patanjali's Astang Yoga comprises eight steps which can be classified into three heads. 1. Yama, 2. Niyama, Asanas Pratyahara (external yoga), and 3. Pranayama Dharana Dhyana and Samadhi (internal meditation).

1. Yama (Restraints) consists of five rules.

(a) Satya (truthfulness)— One should be fair and true in speech, action, thought and conduct.

(b) Ahimsa (non violence)— One should not harm any living being by way of speech and action. Ahimsa creates internal and external harmony among the people and keeps them free from any type of hatred and ego.

(c) Achorya (honesty)— Achorya implies not to steal others belonging.

(d) Brahmacharya (sexual continence)— Brahmacharya does not mean to completely abstain from sexual activities. But one must remain under limit with one's own wife or husband.

(e) Aprigrha (minimising desires)—A practitioner of Yoga must keep his desires to a minimum. Aprigrha makes one's life simple one remains contented with what one has.

2. Niyama (Observances): Niyama lays stress on five rules—

(a) Shauch (purity)— Besides cleanliness of the physical body, purity of mind is equally important, mind should be free from anger, greedy ego, lust, jealousy, pride and hatred.

(b) Santosh (contentment)— One should develop habit of contentment even in adverse circumstances. One should always feel satisfied with what one has.

(c) Tapas (devotion to God)— Tapas lays emphasis on self-purification and self discipline and makes efforts to have ultimate union with the divine. Tapas implies purity in body, speech and mind. When one attains Tapas, one can easily attain strength of body and mind.

(d) Swadhyaya (self learning)—Self education is called swadhyaya. Education by the self and for the self without any teacher or guru is swadhyaya. The practitioner or both a gurus and a discipline.

(e) Ishwar pranidhana (dedication)— It means one's full faith in God, complete surrender of self to God, with dedication of all desires, wishes and actions (Samarpan). It implies worship of God and the firm conviction that God is omnipresent, omnipotent and omniscient.

3. Asanas

Asanas means any posture of seat in which one can remain comfortable for a long time. The practice of Asanas keeps one's body and mind fit. Regular practice of Asanas purifies the nerves and veins and improves the main systems of the body: namely circulatory, respiratory, digestive and nervous systems.

4. Pranayama

Pranayama or yogic breathing implies systematic control of breathing. Prana is the life force present in all animals and inanimate, small and big things. Pranayama activates Sushmna (spinal cord) and influences the entire nervous system. The components, importance and kinds of Pranayama have been discussed separately in the chapter Swaraya Yoga.

5. Pratyahara (Control over Senses)

Pratyahara suggests that man must have control on his senses and desires. By practising Pratyahara one enjoys great bliss, and one knows what to select and what to reject in life. By observing Pratyahara one enjoys equanimity of mind which leads him to perfection.

6. Dharana (Concentration)

Dharana is the fundamental stage of meditation. In fact Dharana or concentration is needed for any human activity without Dharana or concentration our efforts will prove futile. One's mind should become an obedient

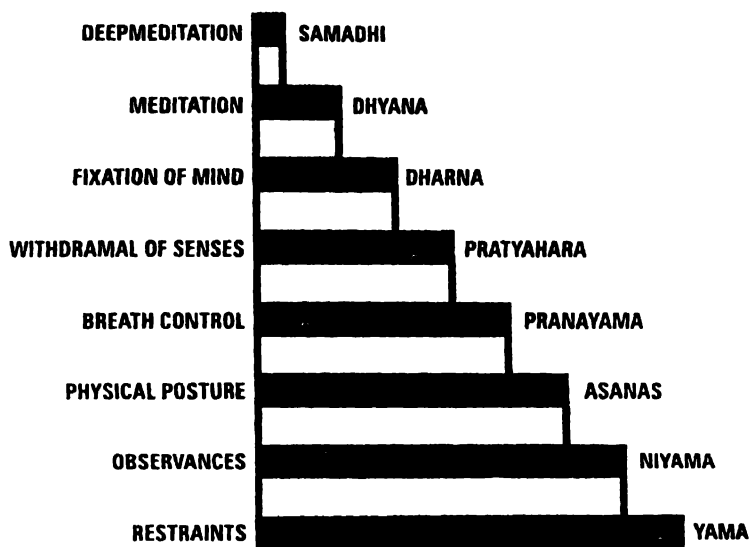


Fig. 4.3: Eight-Limbs of Yoga

servant after practising Dharana. In the process of Dharana, one should focus ones attention on a particular image, object, symbol or some point (bindu), those who want to achieve success in Dharana should regulate their diet, speech thought and actions first.

7. Dhyana (Meditation)

Meditation is the practice of constant observation of mind focussing on a single point. By constant and regular practice of meditation one can develop sense of satisfaction, sense of self discipline and will power. Dhyana or meditation purifies the mind from Rajas and Tamas Gunas and enlightenments and the mind with peace and tranquility.

8. Samadhi

Samadhi is the climax of super consciousness. When Dhyana matures, subject and object become one. In

perfect Samadhi one loses all consciousness of body breathing mind. He reaches the super conscious stage where his purity shine.

Yoga is a subjective art and science. Yoga therapy is used to treat mental conditions such as depression, anxiety and stress. Yoga is not just physical training it is not even mere physical exercise. It is an ancient practical system for assessing, healing and integrating the body and mind. It goes beyond fitness. Bija Bennett, author of "Emotional Yoga" believes that the emotions and our health are intimately connected. Emotions are physical and act as a bridge between body and mind. If we alter the awareness of our emotions we automatically alter our physical state. Yoga has always been a holistic discipline that deals with body, mind and spirit simultaneously.

For improving the function of the brain mere Pranayama is not enough. For this purpose continuous supply of Biological energy is needed other wise no matter what we do. It will not produce any significant change in the brain. Only 10% of the brain is functioning at the psychic centre. If the unused 90% of the brain is to be brought into action it must be supplied continuously with abundance of fresh energy throughout the period. But it may not be so easy for a common man to practice all the steps of Kundalini Yoga. Sri Aurobindo has suggested an easy and simple method for awakening Kundalini. He has propounded spontaneous method of awakening Kundalini. According to this method a person by his own efforts and without depending upon the help of others can awaken Kundalini. Rohit Mehta explains this simple method of awakening kundalini as the fusion method. Fusion takes place at the Shasarara Chakra in the brain by joining the feminine or negatively charged Shakti with masculine or positively charged element. When

both of them fuse together there is liberation of biological or cosmic energy which ultimately gives additional strength to the newer areas of the brain. Mehta states, "In the awakening of Kundalini what takes place is the release of biological energy. This happens because of the negative and positive poles of our Biological mechanism being induced to come together. The Muladhara Chakra is where Kundalini power lies coiled. If it is stimulated then the positive pole which is shasrara will experience a union with the negative pole. When this happens energy is made available to the body. This release is experienced in the brain so the brain is endowed with a great deal of released energy with which it brings the unused portions into operation". It is logical to think that during the feeling of happiness the additional energy that we get to our brain comes from no where else but from Kundalini. But if we misuse such an energy which has been liberated during the state of our happiness we would be losing great opportunity to improve ourselves both physically and mentally.

One of the most important characteristics of the brain is that it has a capacity to become a storehouse of memories. We begin to lose such memories after injury, illness, or in old age. These memories are the stored records of experienced of an individual and this is the important function of the brain. Now the question arises can we improve the quality and quantity of our memory? It is thought that some drugs can improve the memory. But drugs gives side effects and reactions and in the long run drugs prove very harmful for physical and mental health with the help of the systems of yoga. We can improve the memory process considerably. The human body maintains a constant internal environment even though our external environment continually undergoes changes. All the homeostatic mechanisms are regulated by body hormones secreted by various

endocrine glands. However even this function, according to Prof. K.N. Udupa, is further regulated by the two parts of hypothalamus and the entire mechanism is controlled by this region of the brain. The regular and constant practice of Yoga can give healthy physical, mental and spiritual life. The main aim of the Kundalini Yoga is to attain first a voluntary control over the autonomic nervous system. This is usually followed by activation of the different centres of brain by transmitting certain specific neurohumors to these areas. The main principle underlying is to arrange maximum supply of oxygen to each Chakras and other centres so they become awakened and more active. The Mantra Yoga, Patanajali's Ashtang Yoga and Kundalini Yoga are great weapons for improving the functioning of the brain and for improving memory.

5

Memory and Swarodaya Yoga

“Dehyante dhyayamanana dhatuna hi
Yatha mala. Tatha Indriyanam dehyante

— **Manu**

“Just as Impurities of gold etc
are removed by the flame of fire,
the senses throw out their
Impurities through Pranayama”

—**Manu**

An Important branch of Hatha Yoga and Kundalini Yoga is swarodaya Yoga. Swarodaya Yoga deals with the methods and aims of yogic breathing. An irregular and faulty breathing system can be the cause of many physical and mental ailments and disorders. Before undertaking the process of Swarodaya Yoga it is essential, to do internal washes. Dhouti, Neti, Nouli and Bhastikriya are Yogic methods of internal cleansing.

1. Dhouti

In Yoga Dhouti-Kriya implies a specific sense of washing such as of the stomach, intestines and abdomen with water to make those free of accumulated

wastes or bacteria etc. And to keep up the body in healthy condition. It has been observed that the Dhouti Kriya as set down in Hatha Yoga are difficult processes for the common man and as such certain modifications and changes have been made and new processes invented so that any person healthy and weak can do them without losing the benefits. These Dhouties or washes are great aids in preventing and curing many physical and mental disorders particularly caused by infections.

(a) Bamana dhouti— According to this Dhouti, drink 4-5 pints of tepid water and insert the ring finger, middle finger and forefinger together upto the 'Uvula' in the throat, a slight titillation with the finger ends will excite the tendency for vomitting process until the stomach throws out the entire quantity of water drunk. A little salt may be mixed with the tepid water by those who cannot vomit even by titillation in the throat with finger ends. This method of cleansing will bring out bile, mucus and acid from the abdomen. The accumulated mucus, bile and germs which are harmful to the body will be washed off the stomach.

(b) Barisara Dhouti— This is another method of washing intestines and abdomen. Drink 2-3 pints of tepid water, and procure a soft kind of rubber tube 3 ft. long and 3/4 inch in outward diameter. Before using the tube. It should be disinfected in boiling water for 5 minutes. Now stand slightly bending forward and insert the rubber tube below the throat and try to devour the tube inch by inch and increase devouring day by day. The whole tube will go down the throat in a week's time. When this is achieved the water drunk will not be thrown out in a gush rather, it will flow down through the tube incessantly decomposed bile, rotten mucus and particles of undigested food and other accumulated poisonous contents of the stomach. Then drag out the tube slowly and the tube should be washed in soap water.

This method of stomach wash is not difficult and can be done by any one. This Dhouti prevents acidity, biliary troubles, indigestion, constipation, colics, neuralgia, catarrhal troubles and any infection. After Barisara Dhouti no food should be taken within half an hour. Barisara Dhouti helps curing all kind of acute or chronic diseases.

(c) Sahaj Agnisara dhouti (washing abdomen by air)—

This abdominal exercise helps flowing down of healthy blood and air into the regions of the abdomen where various types of bacilli hatch up. This exercise should not be done by women, under menstrual course and who are pregnant

Technique of this exercise is very simple. Sitting in Siddhasana or Padamasana on a folded blanket place your hands on both sides of hips, placing the thumb above the hip bones but below the last rib and the fingers on the navel. Fix the thumb and exert pressure on the navel so as to attach with the spine behind release the pressure slowly and repeat it 15- 20 times. For fatty people it will be difficult to fix the navel with the spine.

2. Noul

It is stomach exercise. It tones up and strengthens the muscles of the stomach and entire nerves, muscles and the arteries. The technique of this exercise is not difficult. Stand at ease with feet 15 to 18 inches apart and the upper body slightly inclined forward. Place the palms on thighs. Now exhale completely and pull in the belly upto the spine behind. Now exert pressure on thighs in such a way that the muscles of the pelvic region are moved. Now push out this entire muscular structure. In the beginning, it may be difficult to move the muscles or the pelvic region but regular practice will give the required form.

(a) Bama nouli (left side)— This is the variation of Nouli. Stand at ease with feet 15 to 18 inches apart and the upper body slightly inclined forward. Stay at the Nouli *of the middle relax the pressure of the right hand slightly but keeping that of the left as usual.* Now slightly incline the trunk into the left and move the abdominal muscles of the right side and this will form another rod-shaped muscle to the left side.

(b) Dakshina Nouli (right side)— When the left sided nouli is performed, try this right sided nouli in the reverse order. Relax the pressure of the left hand keeping that of the right intact and bend the body slightly to the right and try to raise the right side. This will form a rod shaped muscle on the right side. This Nouli helps to equate the basic physiological elements of wind, bile and mucus. By this exercise the stomach, the liver, and the spleen are made stronger. The adolescent period is the best period for performing Nouli. Under aged children, pregnant women and women during the period of menstruation should not perform Nouli. Moreover people having heart disease, high blood pressure, stomach ulcer should not do Nouli.

3. Neti-Kriya (Nasal Wash)

Neti kriya is done to wash out the nose upto its root. This kriya is performed through the nose. There are two methods of doing Neti-Kriya, one with a cotton thread well-soaked and polished with bees wax. Another method is with a very thin rubber tube. This method is simple and most satisfactory. This method with water is popularly known as Nasa-Pan. The technique of Nasa Pan is not difficult. Fill up a bowl (medium size) with water and dip your mouth and nose into it. Hold up breath and try to slowly inhale some water through the nose. In the beginning one may experience some burning at the root of the nose and some sneezing also. In this kriya

one has to drink water through the nose. The water inhaled should be gulped out through the mouth. This method should be done once a week. In this method, Ida, Pingla and Sushuma have met together at the root of the nose. The Neti-Kriya keeps the head cool. Bacteria of cold and cough, influenza. Asthma, typhoid, pneumonia get an opportunity to germinate and spread inside the body when catarrh accumulates at the root of the nose and then obstructs natural respiration. So Neti Kriya keeps the body free from bacteria and helps to cure cough and cold.

After, the internal yogic cleansing, Pranayama or Yogic breathing should be done. Swarodaya Yoga or Yogic breathing aims at mental, physical and spiritual development of man. Prana which is basic energy stimulates mental and physical forces not only in human beings but in all forms of life, may be a small flower or a huge tree, an insect, a bird or a big animal. Prana is the basis of all types, physical mental, intellectual higher or lower. Prana is different from breathing. It is inside the blood and the bones. Without prana, body dies and decays. Prana which assumes five forms have five different bodies i.e., Prana lives in the heart, Apana remains in the anus, Samana has its seat in the region of the naval, Udana's abode is the throat while as Vyana, the all pervading moves all over the body. Respiration and breathing are different. Breathing stands for the mechanical act of inhaling air into and exhaling it out of body. The moment a baby is born, it starts breathing spontaneously. Respiration on the other hand is a life giving process which continues from birth to death. Prana is the force behind and within breath.

For doing Swarodaya Yoga one should have purity of thoughts, words and deeds. Mind should be free from all kinds of desires, worries, anxieties stress, tension and emotions for they disturb the serenity of mind. There

should be strict control over one's diet and sexual habits. Swarodaya Yoga is a physical and mental exercise, a purifier of body mind and Nadis and healer of diseases and disorders. The lower type of breathing goes a long way in healing physical and mental ailments whereas the higher type of breathing leads to spiritual heights. In breathing high the upper part of the chest moves the lungs, but the air inhaled is minimum. The middle way breathing is good. In the low breathing, the movement of the diaphragm makes the air rush to fill the lower and middle parts of the lungs. In Swarodaya Yoga, the maximum quantity of oxygen is inhaled, kept and absorbed in the system and carbon dioxide is fully exhaled from the lungs. Thus Swarodaya Yoga is a scientific, mental and physical exercise particularly of the diaphragm, the abdominal muscles, the heart liver the nervous and endocrine systems and the spinal cord. The three stages of Swarodaya Yoga or Yogic breathing are Purka (inhalation), Kumbhaka (retention) and Rechka (exhalation). A person who practices Swarodaya Yoga regularly enjoys excellent health, sparkling eyes and sharp memory.

Persons having impaired memory or suffering from loss of memory are required to do the following breathing exercises.

Exercise No. 1

Sit in Siddhasana or Padamasana on a folded blanket the body should be kept perfectly steady with head, neck and back straight. Close the right nostril with the right thumb and slowly inhale through the left nostril as long as you can with ease and comfort. Then exhale through the same nostril. This will constitute the first round. Repeat it five times.

Exercise No. 2

Sit in Siddhasana or Padmasana on a folded blanket and close the right nostril with right thumb and slowly inhale through the left nostril. Retain breath for a couple of seconds. The strength and power lies in the retention of breath and increase this period of retention gradually. Then exhale breath slowly and rhythmically. Repeat it five times, and do this exercise with right nostril closing the left nostril.

Exercise No. 3

Sitting in Siddhasana or Padmasana. Keep your head, neck and back straight. Inhale from both the nostrils and retain breath as long as you can with ease and comfort. Then exhale breath with both the nostrils. These breathing exercises should be done with tension free, worry-free mind. Exhale breath slowly and rhythmically. The period of retention of breath should be increased gradually. Repeat this exercise five times.

Exercise No. 4

Sitting in Siddhasana or Padmasana. Keep the head, neck and back straight. Plug your ears with middle finger and inhale air slowly and rhythmically. Retain breath as long as you can with ease and comfort. Then exhale breath slowly the period of retention should be increased gradually. Repeat it five times.

Exercise No. 5

Sit in Padmasana or Siddhasana posture with body neck and head straight. Inhale and exhale breath quickly 8 to 10 times. In this exercise the breath is not to be retained. This exercise cleanses the nerve channels and purifies blood stream, and tones up the entire nervous system.

Exercise No. 6

Sitting again in Padmasana or Siddhasana. Inhale breath with both the nostril and retain breath for a couple of seconds and close your right nostril with your thumb and exhale slowly through the left nostril. While doing this exercise, glottis is also to be closed. Repeat this exercise with another nostril. This exercise also cleanses the nerve channels and tones up the entire nervous system.

Exercise No. 7

Sit as usual in Padmasana or Siddhasana and fold the tongue in such a manner that the tip of the tongue touches the upper palate and draw the air through the mouth. In this exercise air is inhaled through the mouth with a hissing sound. These exercises purifies the blood stream, and tones up the nervous system. These Yogic breathing exercises can have wonderful effect upon the body and mind of the practitioner.

Prof. K.N. Udupa states, "There is continuous flow of electrical energy from the brain which is recorded in EEG. There are four types of waves namely alpha, beta, theta and delta waves. By biofeed back method, a person not only learns to recognise the type of his brain wave, but also to regulate the output of each one of them. Normally brain cells continuously discharge electrical energy one can select one of the waves which may be more beneficial to him for improving his mental power and memory.

6

Warm-up Exercises and Asanas

“Yogasanas tone and shape the body. Yogasans have a profound effect on improving circulation, especially to the extremities Yogasans help keep the blood vessels elastic and reduce blood pressure . Yogasans gently press on the body’s glands and organs, resulting in positive effects for the digestive, endocrine, reproduction and nervous systems.”

—**Hatha Yoga Pradipika**

Most of the books written on Yoga have shown silence towards the warm-up and limber-up exercise. The uses and importance of warm-up exercises cannot be under estimated. Physical fitness is “the ability to perform daily tasks vigorously and alertly with energy left over for enjoying leisure time activities and meeting emergency demands”. Physical fitness implies the performance of the heart and lungs and the muscles of the body. Physical fitness is an individual quality which differs from person to person. It is influenced by age, sex, heredity, personal habits, exercise and diet. Four components are fundamental aspects for physical fitness.

1. Cardiorespiratory Endurance

It is the ability of a body to supply oxygen and nutrients to tissues and to remove wastes over sustained

periods of time. Warm-up exercises and limber-up exercises can improve cardiorespiratory endurance.

2. Muscular Strength

It is the ability of a muscle to exert force for a short span of time.

3. Muscular Endurance

It is the ability of a muscle to sustain repeated contractions or to continue applying force against a fixed object.

4. Flexibility

This is the ability to move joints and use muscles through their full range of motion.

Regular exercise is important throughout life as it improves circulation, enlarges lung capacity, aids bowel function and the digestive system. Exercises for strength, suppleness and stamina can considerably improve life expectancy and vigour in older age. It is essential to do warm-up exercises before doing asanas. Warm-up exercises reduce the risk of muscular pull and injury of joints during the performance of asanas. Warm-up exercises also increase the mobility in all joints so that muscles can move with ease and freedom. The warm-up exercises should be done rhythmically with easy long stretching movements without vigorous jerks. The following warm-up exercises must be done before doing Yogasanas—

1. Exercise No.1 (Swaying Palm)— Stand erect with feet together. Stretch the arms over head and interlock the fingers, turning the palms upwards with a twist of the wrists. Interlace the fingers with the palms pointing downwards. Stand high on tip-toe for a couple of seconds

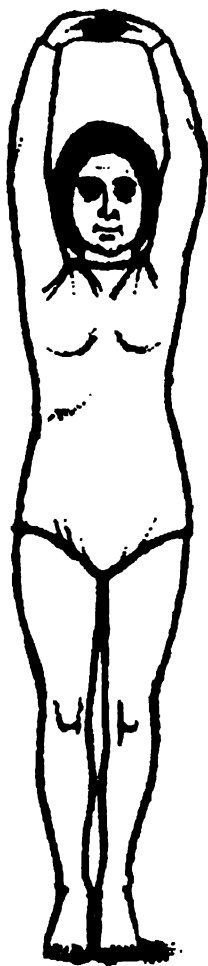


Fig. 6.1: Swaying Palm

and breathe in. Retain breath for a couple of seconds. Lower the heels to the floor and exhale breath. This exercise improves posture and balance, increases physical and mental poise. Exercises the lungs, strengthens the wrist, calves, and feet and tones the muscles of the arms shoulders, chest, back, abdomen, hips and legs.

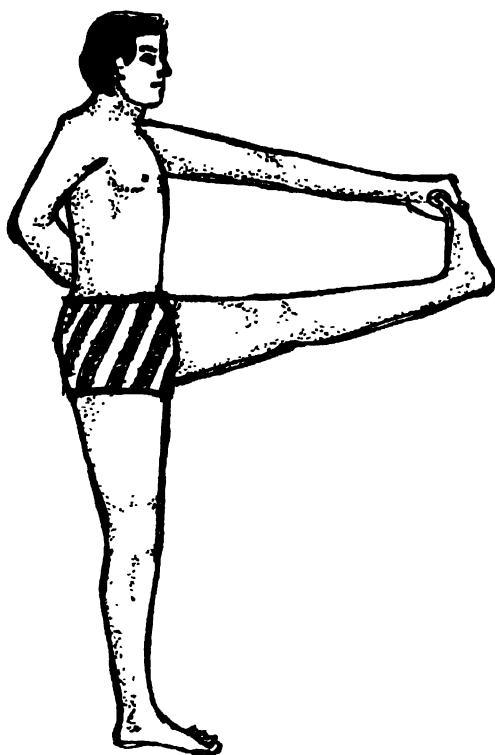
2. Exercise no 2. (Leg raising and stretching):-

Fig. 6.2: Leg Raising and Stretching

Stand erect with feet together. Raise the left leg and touch the toe with your left hand. As long as the leg is raised inhale breath and retain breath for a couple of seconds. Lower down your leg and exhale breath. Repeat it with the right leg repeat this exercise 5 times. This exercise improves the leg muscles and tones up lungs and abdomen muscles.

3. Exercise No 3. (Leg Hip stretching) Lie flat on the back the legs fully extend, the arms by the sides the palms of the hands turned down. Exhaling, raise the legs to the same angle so that the upper body and the legs form



Fig. 6.3: Leg Hip Stretching

a right angle. As the back lifts clear of the floor, take palms of the hands on the floor behind and the out from the shoulders the fingers pointing away from the body. Remain in this posture for 10 seconds. And retain breath for a couple of seconds. Then exhale breath and return slowly to the starting position lying full length on the floor.

This warm-up exercise tones up the muscles of the hips and abdomen and tones up the nervous system.

4. Exercise No. 4 (Leg-elbow stretch)

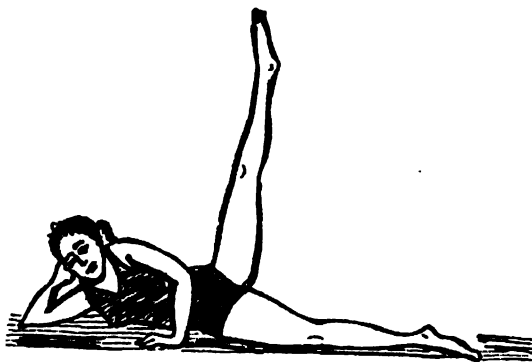


Fig. 6.4: Leg Elbow Stretch

Lie on your right side. Rest your head on your right palm and rest the right elbow on the floor. Now extend your leg as high as you can. Then slowly bring it back to your original position. Inhale breath while raising the leg, and retain breath as long as the leg is up. Then exhale breath slowly while bringing down the leg. Repeat this exercise 10 times.

5. Exercise No. 5 (Cycling in the Air)

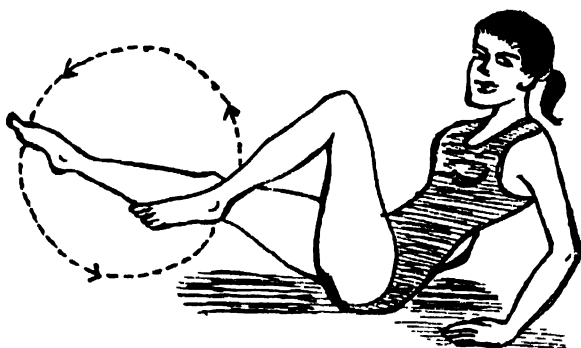


Fig. 6.5(A): Cycling in the Air

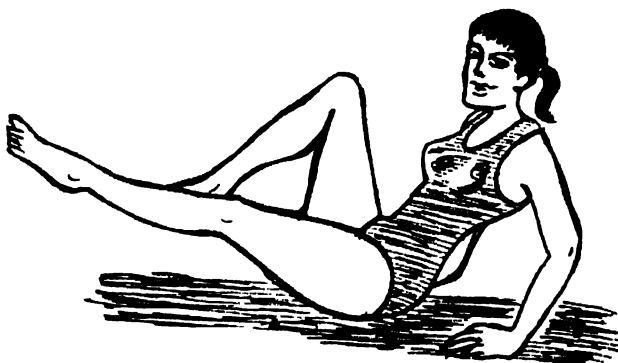


Fig. 6.5(B): Cycling in the Air

Lie on the floor squat on the floor and keep your legs straight place your palms on the floor behind your body as shown in Fig 5. Tilt your body in such a way that its weight is distributed on both arms. Now raise your legs slightly up and move them as if you are cycling. This exercise tones up the hips, strengthens the abdomen, legs, and tones up the nervous system.

6. Exercise No. 6 (Spine knee squeeze)

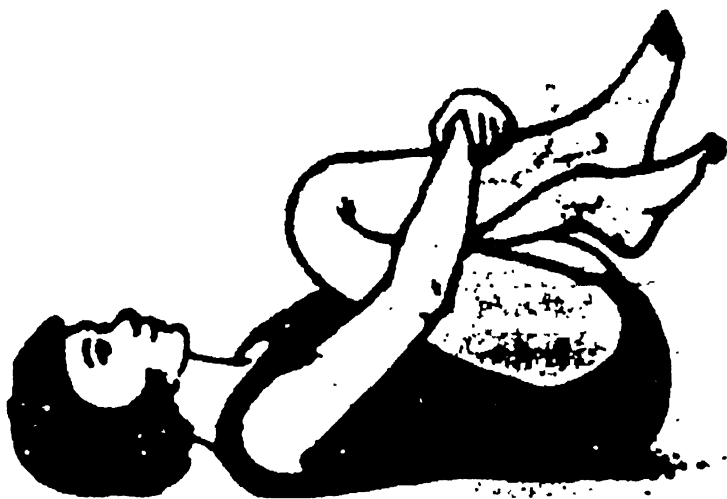


Fig. 6.6: Spine Knee Squeeze

Lie straight on the back and interlock the legs and hold the legs with your hands. Rotate the body on the right, front and left side. Inhale breath while rotating the body and retain breath for a couple of seconds. Then exhale breath rhythmically and slowly. Repeat it 10 times. This warm-up exercise stretches the spine and tones up the muscles of the abdomen hips back and neck.

7. Exercise No. 7 (Head rotation) Stand erect with feet together keep your hands on the hips. Keep your body steady and move your head five times clockwise circular motion. Then move it five times in anti clock

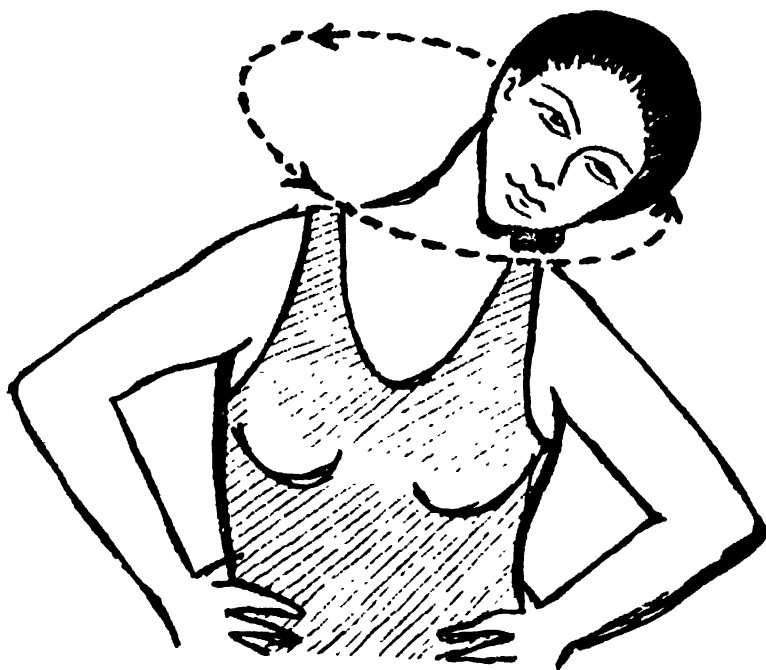


Fig. 6.7: Head Rotation

wise direction. Move your head slowly 10 times. Every times try to tilt your head as much as you can. Breathe freely and rhythmically. Do this exercise very slowly otherwise it might cause giddiness. This warm-up exercise strengthens the muscles of the neck, spine, hips and face.

More Warm-up Exercises

8. Exercise No. 8 (Arm Rotation) Stand erect with feet one foot apart and the arms fully extended in line with the shoulders and palms up. Slowly turn the arms forward and back so that the palms face first the front then behind, then upwards and downwards. Keep the body straight. The arm rotation exercise improve the flexibility of the shoulders joints and strengthen and tone up the arms.

9. Exercise No. 9 (Chin High Kicking)— Stand erect with your feet together and your arms stretched out in front of you at shoulder height. Inhale slowly and rhythmically. Kick forward and upward towards your hands. First with your right foot, then with your left foot. Let the standing leg bend slightly when you kick. Exhale when you lower your kicking leg. Repeat this exercise 10 times.

10. Exercise No. 10 (Side Bending)— Stand erect with your feet wide apart and your hands on your hips, with your elbows pointing side ways. Breathing freely bend your body to the left making sure that your head and neck tilt with it. Then bend to the right. Repeat this exercise 10 times.

11. Exercise No. 11 (Seated Expansion)— Sit on the floor with your legs straight and arms raised. Stretch your arms as high as you can and also stretch your legs forward. Try to keep your body upright. Repeat the stretching of arms upward and legs forward 10 times.

Asanas

Asanas occupy very important place in the system of Hatha Yoga. Asanas have become so popular in the east and the west that generally people think that Asanas means Yoga and Yoga means Asanas. One of the main reasons of its popularity is its insistence on health. Generally people do Asanas without any concentration sequence and breath control. Asanas should not be done at random. Every Asana has a specific aim, and each Asanas is to be followed by counter pose. The word Asana means a posture in which one can remain steady, calm quiet and comfortable physically and mentally for a certain time whether seated or otherwise. There are lakhs of Asanas given by ancient Rishis and Yogis. Many

people wrongly consider Asanas as gymnastic exercises or body building techniques. If the gymnastic exercises constitute Yogasanas then every circus clown would call himself a "Yogi". The purpose of Asanas is integrated development of the personality i.e., physical, mental and spiritual whereas physical exercises of gymnastics have only a physical effect on the muscles and bones. Physical exercises are performed quickly and with lot of fast breathing. No doubt the acrobatic or gymnastic exercises develop large muscles or flexibility but very large muscles require more nutrition and greater supply of blood which puts greater strain on heart and respiratory systems. After doing these exercises a person may feel very healthy but as he grows old, the bodily functions slow down and the problem of stiffness and rheumatism occur. The overdeveloped muscles become flabby. Yogasanas are effective and useful for both internal and external systems of body. With the help of Yogasanas, the nervous systems the circulatory and digestive systems, endocranial glands, internal organs as well as the muscles function property. Asanas have physical and psychosomatic effect. They can be done by all young and old, men and women.

Regular practice of Asanas is highly beneficial for the purification of veins and nerves, and promotion of sound mind and sound body. Asanas are of three types. Those which are associated with concentration and meditation, such as Siddhasana, Swastikasana, Padmasana, Sukhasana. The second type of Asanas are meant for the healthy growth of the internal and external organs of the body such as Shirshasana, Sarvangasana, Bhujangasana, Chakrasana, Shalabasana, Mayurasana, Garbhasana and Pachimottanasana. The third type of asanas are meant for rest and relaxation. Such as Jeytiskasana, Advasana, Makarasana, Matsyakridasana

and Shavasana. The proper technique of Asanas is very essential otherwise the Asanas performed wrongly can prove very harmful.

There is no age or sex bar in doing Asanas. Asanas make the body supple and flexible and are able to adjust themselves to changes of environment. Asanas keep the physical body healthy and free from disease. The regular practice of Asanas increases the power of concentration, equilibrium and vitality.

The spinal cord is called the tree of life. The branches and leaves are the ramifications of the nervous system which spread to the near and distant parts of the body. The functioning of the nervous system depends upon the spinal cord. With the advancement of age, the vertebrae and joints become stiff or rigid, particularly when no exercise is done. Yogasanas keep the spinal cord supple and flexible. The waste matter accumulated in our body is eliminated by Yogasanas. As the age of a person increases several organs of the body are weakened or even damaged. The consequent accumulation of chalk-like cholesterol or other impurities in the muscles the veins and arteries harden and narrow thus making the circulation of blood slow and irregular. Some diseases are therefore caused by improper elimination of waste matter, such as urine and stool from the body. Yogasanas increase the resistance power of the body and keep it free from disease.

Asanas also rejuvenate and tone up the different glands of the body. These healthy glands produce required secretion which help proper growth of the body, making it neither fat nor too lean. Asanas help to awaken the psychic faculties. Asanas are considered as forms of psychic purification.

Concentration is required in every human activity. Without sound mental attitude or concentration, our efforts will not bear fruit. During each Asana it is

important to maintain concentration. The beginner should concentrate upon the correct technique of an Asana until he is able to practise that Asana with automatic ease. When a practitioner becomes adept in doing certain Asanas, minimum number of muscles is used and least amount of energy and concentration involved. Once the adept is able to do a certain asana in a relaxed and automatic ease, then he must concentrate on breathing. Normal breathing must continue naturally and rhythmically. Since different muscles are involved, concentration is maintained between the mind and the movements. Finally the adept should concentrate on the Asana's strategic points of action. Each Asana produces assessed effects on some parts of the body. For example, the thyroid region is affected by Sarvangasana and the solar plexus by Dhanurasana. This is the point on which the adept will concentrate. The positive effect of an Asana is diluted when there is lack of concentration at the proper part of the body.

In order to get required benefits of Asanas. It is necessary to perform them properly at the proper place and time. Some practitioners of Asanas, say that they have been doing Asanas regularly but they do not find any radical change in their health. It has been observed that most of the people do not do Asanas correctly and regularly sometimes their postures are wrong, sometimes concentration lacking following rules must be observed before doing Asanas—

- (a) The selection of the place is the first requisite. Asanas should be done in a well-ventilated calm, quiet, and clean room free from mosquitoes, flies, ants, rats, dirty or smoky air.
- (b) Before doing Asanas the bladder and intestines should be empty. If the practitioner has problem of constipation, he should drink two or three glasses of lukewarm saltish water and then practise Tadasana, Katichakarasana, Bhujangasana, these

Asanas will relieve his constipation.

- (c) Asanas, should be done after Pranayama and Shavasana should be done last of all.
- (d) While doing Asanas breathing should be done through nose, keeping the mouth and eyes shut. Only in Simhasana, breathing is done through mouth.
- (e) During Asanas, it is better to wear minimum loose, light and comfortable clothes according to season. Ornaments, wrist watch, rings, necklace, spectacles should be removed before doing Asanas.
- (f) A Yoga practitioner should pay proper attention to food which gives energy vitality and vigour. It is better to eat Yogic diet which is simple, nutritious and easy to digest. One should avoid eating food which causes gas trouble acidity or indigestion. A practitioner of Yoga, should strictly avoid smoking, liquor consuming and drugs. They can prove very injurious for health.
- (g) All Asanas should not be done at the start. The practitioner should start with static Asanas and then take to dynamic Asanas.

A Word of Caution

(a) People having fractured bones and those who are suffering from chronic high blood pressure, mental ailment, chronic low blood pressure, heart ailments should not do following Asanas—

Shirshasana, Sarvangasana, Dhanurasana, Garbahasana, Kakuttasana, Sumerasana, Dolasana, Chakrasana, Mayurasana, Matsyasana, Ushtrasana, Bhumipadamstasana, Vrischikasana, Setuasana, Kandhvasana.

Instead they should do Siddhasana, Swastikasana, Jeytikasana, Salabhasana, Advasana, Surya namaskar, Shavasana and Padmasana.

(b) Pregnant women and women during the period of menstruation should not do any Asana except Simhasana, Siddhasana, Sukhasana, Padamasana, Advasana and Shavasana.

Since Amnesia or loss of memory is associated with brain and nervous system and stress is the root cause of mental and physical problems. When there is an imbalance in the sympathetic and para sympathetic nervous system, there is also a change in the endocrine system and hormonal secretions. This hormone which has been produced by irregular behaviour of tense situations percolates slowly into the cell which is the structural and functional unity of our body. When there is a change in the emotions, then this feeling reaches the glands through the brain. When the DNA activity the life's blue print starts getting disturbed. Then we ask ourselves what is the technique that can relax our brain because during tension and stress, the brain activity is in a highly aggravated and hypertensive state. Some people consume alcohol to get relaxed. But alcohol never relaxes. It is possible to attain mental tranquility through Yoga. The relaxation which we get in the brain pattern is called "Chitta vritti Nirodhah" in Yoga. It is possible to change the tendencies created in the mind and the patterns of the brain activity through Yoga. Persons suffering from Amnesia impaired memory or loss of memory are required to do the following Asanas. These Asanas have the power to calm the mind, increase power of concentration and increase the ability to cope with stress and tension. These asanas work on all the bodily systems, toning the muscles stimulating the circulation and improve memory.

Asana No. 1 (Surya Namaskar)

Surya Namaskar is a popular splendid, complete Asana which can be practised in the early morning hours facing the sun. In the ancient days this Asana with so many variations was performed daily singly or in a group by some Yogis at dawn. Surya Namaskar is combination of Asanas, concentration and breathing. It has mainly 12 variations which involves the entire muscular and nervous systems. Surya Namaskar is not confined to any particular limb of the body. It acts effectively on the entire organism. It activates glands of the endocrinal system and makes pancreas, adrenal thyroid, pituitary glands, function normally. The different variations of Surya Namsakar can give vigour to the facial tissue and nervous system.



Fig. 6.8(1): Suryanamaskar

Technique

Stand erect with feet together. Place the palms together in front of the chest breathe slowly and normally and relax the whole body. It prepares the practitioner physically and mentally for other variations which follow.

Variation No. 2

Fig. 6.8(2): Suryanamaskar

Raise both the arms above the head. Keep the arms separated. Bend the head and the upper trunk, slightly, backward inhale while raising the arms.

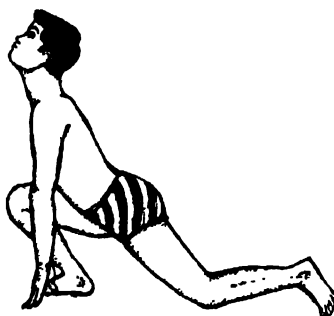
Variation No. 3

Fig. 6.8(3): Suryanamaskar

The palms should be rested on the ground alongside feet. Then the left leg should be stretched backwards sit on the stretched backwards. Sit on the right bended leg, placed between the two arms. Look towards the sky.

Variation No. 4

On a folded blanket stand erect and bend forward, touch the floor with your fingers or hands in front of the feet and exhale. Try to touch the knee with the forehead without jerk or strain. Keep the legs straight and contract the abdomen in the final position to expel as much air as you can.



Fig. 6.8(4): Suryanamaskar

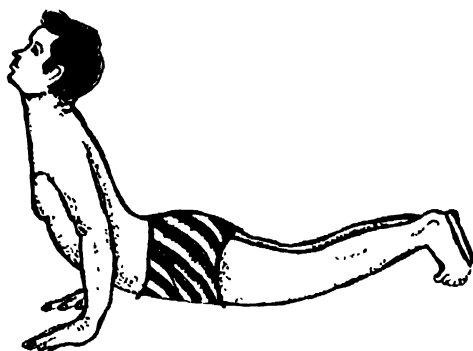
Variation No. 5

Fig. 6.8(5): Suryanamaskar

Spread a blanket on the floor. Lower the body to the floor and touch the floor with toes of both feet, the two knees the chest the hands and the chin. The hips the abdomen should be raised slightly off the floor.

Variation No. 6

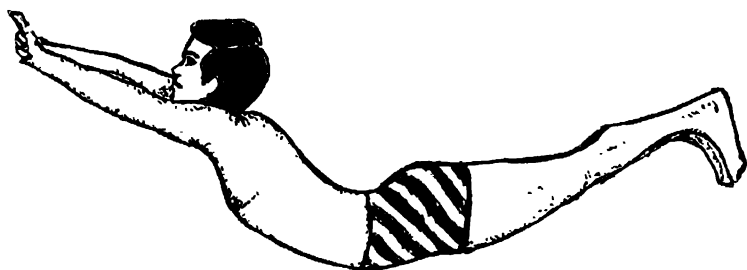


Fig. 6.8(6): Suryanamaskar

The technique of this asana is discussed in Bhujangasana.

Variation No. 7



Fig. 6.8(7): Suryanamaskar

This asana is the repetition of variation No. 5 with slight change.

Variation No. 8

This Asana is the same as Variation No. 4 with slight change of left foot.

Variation No. 9

This Asana is a repetition of variation No 3 with slight change. Place the right foot next to the left foot. Keep both the legs erect and try to bring the forehead as close to the knee as possible.

Variation No. 10

This Asana is a repetition of variation no.7) with slight changes. Stand with body erect and inhale and raise the arms above the head, and keep the arms separated. Bend the head and arms backward slightly.

Variation No. 11-12

This Asana is the final variation of Surya Namaskar and is more or less the same as variation No. 1. Bring the hands in front of the chest and place the palms together and exhale. Release the whole body.

Asana No. 2 Siddhasana**Technique**

Sit on the folded blanket on the floor bend the left leg and pull the foot in against the groin. Now bend the right leg and bring the foot across and insert its outer edge in the crevice between the calf and thigh of the left leg. The right heel should press against the pubic bone and both the knees should firmly touch the floor. Keep the palms of the right and left hands on the right and left knees. Sit upright keeping the head and the back in a straight line. For variation change over the legs regularly. Place the heels near the groin carefully lest the pubic bone should be hurt.

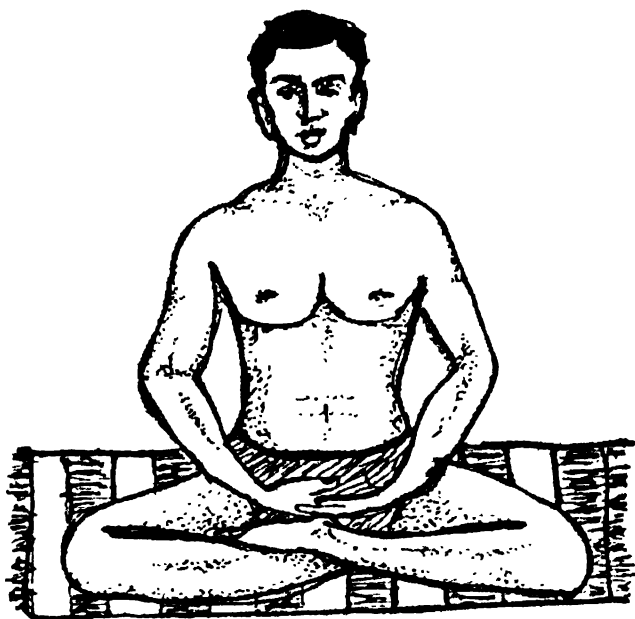


Fig. 6.9: Siddhasana

3. Yog Mudra

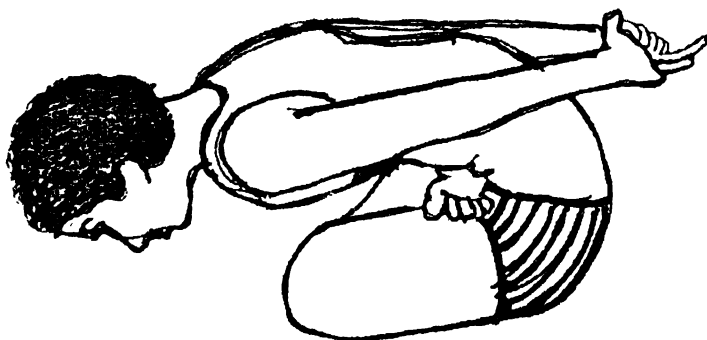


Fig. 6.10: Yog Mudra

Technique

Sit on the folded blanket in Padamasana. Relax the whole body and close the eyes. Place the hand behind the back catching hold of the left wrist in the right hand and keeping the spinal column erect. Inhale and exhale slowly leaning forward touching the floor with forehead. Stay in this posture for as long as you can without any stress or strain. Focus your attention on the abdominal region. Then breathe in slowly and rhythmically. Sit upright and relax.

4. Marjaria Asana

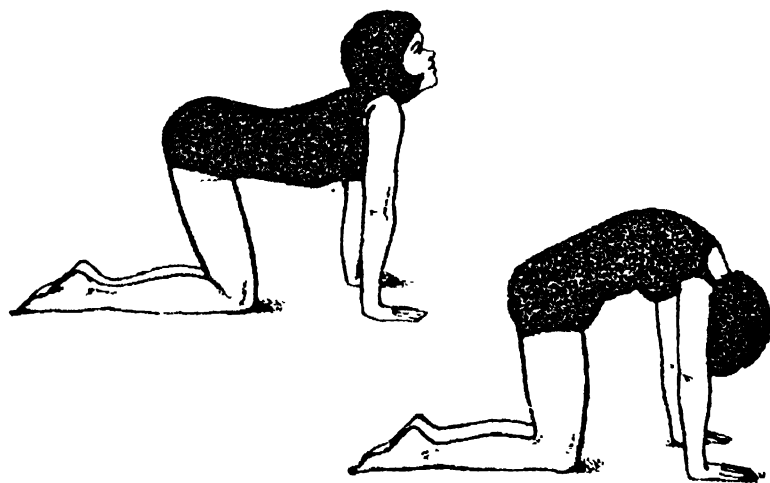


Fig. 6.11: Marjariasana

Technique

On a folded blanket, adopt the pose of Vajrasana, raise the buttocks and stand on the knees and at the same time place both hands flat on the floor in front of the body under the shoulder, Inhale and raise the head. Then exhale and lower the head and arch the spine. Again bend the spine and raise the head. The arms to be kept straight and vertical.

5. Mandukasana

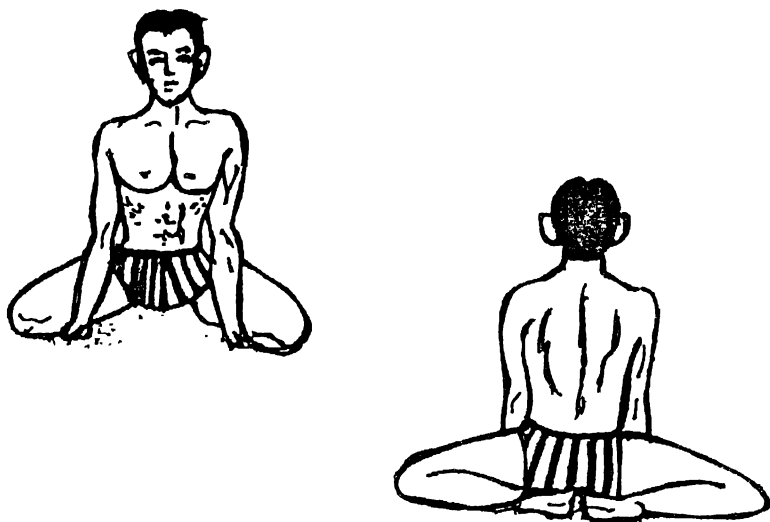


Fig. 6.12 : Mandukasana

Technique

On a folded blanket, sit in any easy posture, keeping the feet together. Separate the knees as far apart as you can without any pain, strain or jerk. Keep the big toes of both feet touching, place the hands on the knees. Remain in this pose for a couple of minutes and breathe slowly. Return to the original position and relax.

6. Gomukh Asana

Technique

Sit on a folded blanket on the heels, knees together and head, neck and spine straight. Bend the right arm, raise the elbow and lower the hand as far down the middle of the back without disturbing the upright posture. Bend the left arm and bring the left hand up



Fig. 6.13 . Gomukh Asana

the centre of the back until the fingers of both hands interlock. Breathe deeply. Remain in this pose for a couple of minutes. Unlock the hands and repeat the process in reverse manner. Return to the original position and relax

7. Pavanamuktasana

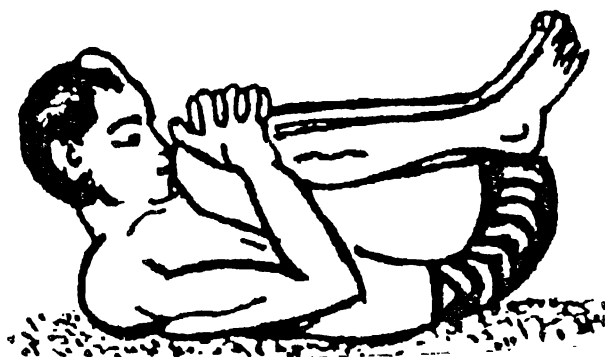


Fig. 6.14 . Pavanamuktasana

Technique

Spread a folded blanket on the floor and lie down straight facing the sky. Inhale raise both legs up, bend them from the knees and hold them with both the hands and bring them close to the chest. Then raise the head up so that the face remains between the two knees. Exhale and breathe slowly. After inhalation and exhalation, hold the breathe and bring head, legs and hands to original position and relax.

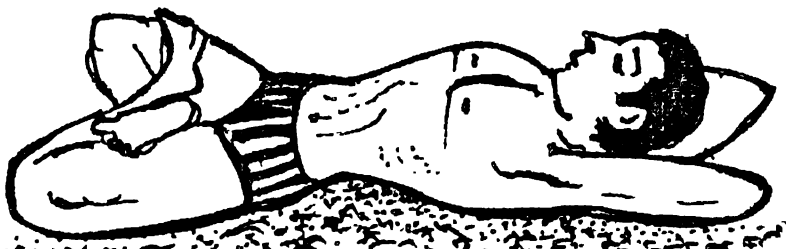
8. Matsyasana

Fig. 6.15 : Matsyasana

Technique

Sit in the Padmasana posture. Lie back, keeping the locked legs down on the floor. Support the body with the hands and elbows. Lift the head and the shoulders and arch the back pressing the crown of the head on the floor forming a bridge in which the shoulders and the back remain above the floor. Grasp the toes with both hands. Breathe deeply expanding the rib carefully. Remain in this pose for a couple of minutes. Return to the original pose and relax.

9. Hala Asana

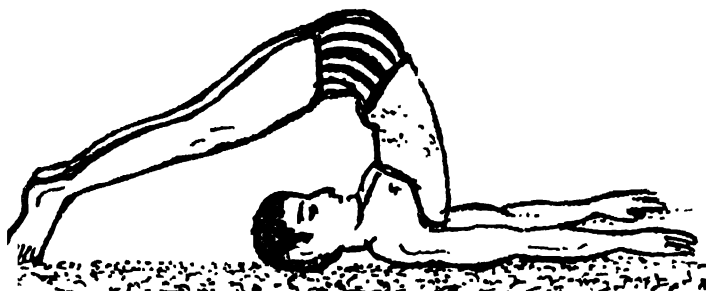


Fig. 6.16 : Halasana

Technique

Spread a folded blanket on the floor and lie flat on the back with arms straight near the body palm facing downward, keeping the legs straight, raise them slowly above the head. Only stomach abdominal muscles should be used to raise the legs. Bend the trunk upward hips first and slowly lower the legs over the head till the toes touch the floor. Keep the legs straight, now interlock the fingers and stretch the arms. The legs and hands are stretched in opposite direction. Breathe slowly without any strain, remain in this pose for a couple of minutes. Return to the original position and relax.

10. Sarvangasana

Technique

Spread a blanket on the floor and lie flat on your back. Then slowly raise the legs up, lifting the trunk and hips vertically. The hips be supported by both hands. Let the elbows rest on the floor. The chin should be firmly pressed against the chest. In this pose, the hinder part of the neck should touch the floor and trunk and legs

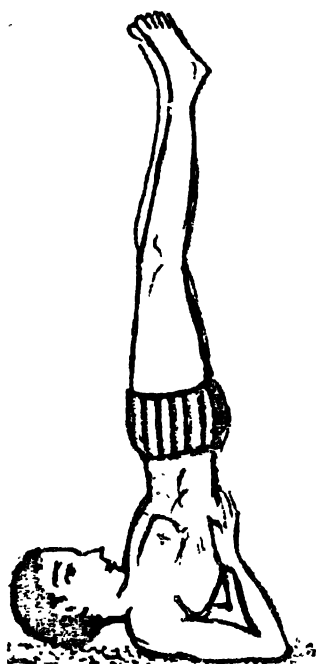


Fig. 6.17 : Sarvangasana

should remain straight. Remain in this pose for few minutes and breathe. Slowly and deeply and concentrate on the thyroid gland which is at the root of the neck. Return to the original position very slowly and relax.

11. Garudasana

Technique

On a folded blanket stand upright. Bend the left knee slightly and twist the right leg over the left leg so that the right foot is touched behind the left calf. The arms should remain crossed in front of the chest so that the left elbow rests on the right biceps against the elbow joints and the left is kept above. Breathe slowly. Then



Fig. 6.18 : Garudasana

repeat the pose balancing on the right leg and reversing the arms and the leg positions. Gaze at a visible white spot or point. Come to the original position and relax.

12. Ushtrasana



Fig. 6.19 : Ushtraasan

Technique

Sit in Vajrasana pose with your feet and knees slightly apart. Stand on your knees and stretch the arms to the sides. Lean backward and put the hands on the heels. Stretch the neck backward and let the weight of the body rest on arms. Bend back as far as possible and push strongly. Remain in this pose for a couple of seconds and breathe slowly without any strain.

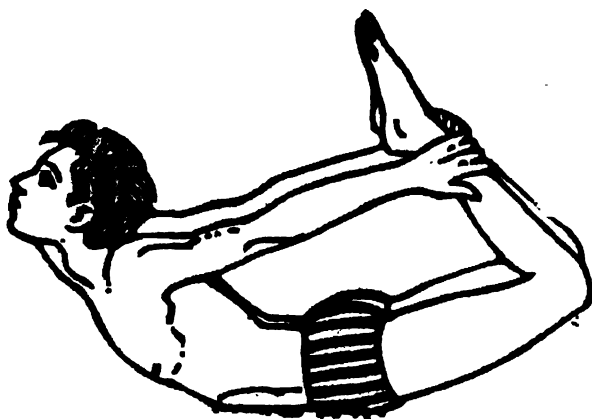
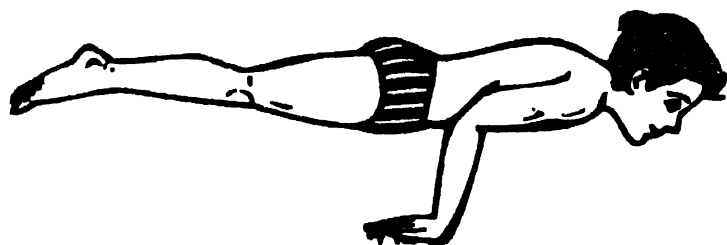
13. Dhanur Asana

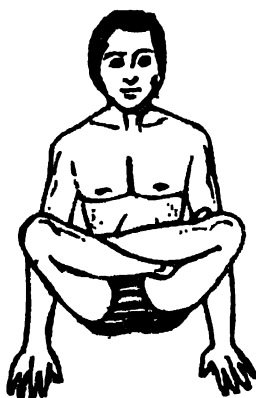
Fig. 6.20 : Dhanurasana

Technique

Lie flat on the stomach and chest, fix the legs bringing the feet back towards the head. Raise the legs, head and upper part of the body. While arching the back, take hold of your right ankle with your right hand and left ankle with left hand. Breathe slowly and normally. Remain in this pose for a couple of seconds. Return to the original position and relax.

14. Mayurasana**Fig. 6.21 : Mayurasana****Technique**

On a folded blanket, kneel down join the two arms together and rest the hands on the floor, palms down with fingers pointing towards the toes. Keep the hands firm. Bring down the abdomen slowly against the joined elbows. Support your body on your elbows. Then stretch your legs. Inhale and raise the legs together from the floor. Remain in this pose for a couple of seconds. Exhale while raising the body off the floor and inhale lowering the body.

15. Utthita Padmasana**Fig. 6.22 : Utthita Padmasana**

Technique

On a folded blanket, adopt Padmasana pose. Lie on the back and place the palms of the hands under buttocks and raise the trunk so that it is supported by the elbows. Then raise the head, legs and trunk further off the floor so that the whole body rests on the buttocks and forearms. Remain in this pose for as much time as you feel convenient. Breathe in and out slowly. Come to the original position and relax.

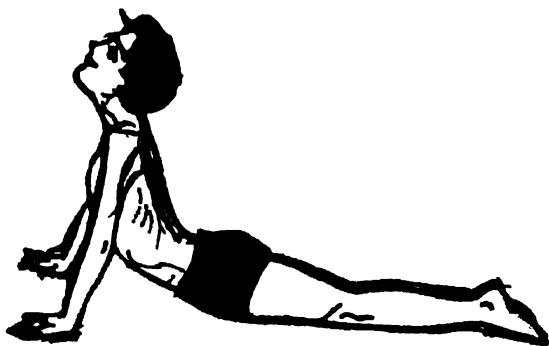
16. Bhujangasana

Fig. 6.23 : Bhujangasana

Technique

Lie flat on the stomach with legs straight and the feet extended. Place the hands, palms under the shoulders slowly raise the body, the navel until the arms are straight but the stomach and the legs must touch the floor. Bend the head back gazing diagonally upwards. Remain in this pose for a couple of seconds. Breathe slowly and normally throughout.

17. Baddha Padmasana

Fig. 6.24 : Baddha Padmasana

Technique

On a folded blanket, adopt the pose of Padmasana. Cross the arms behind the back and grip of the toe of the right foot with right hand and the toe of the left foot with left hand. The chest should move forward. Breathe slowly and freely. Remain in this pose for a couple of minutes. Come to the original position and relax.

18. Parvat Asana**Technique**

Sit on a folded blanket, in Sukhasana or Siddhasana. Raise your hands up slowly. While raising the hands inhale breath and retain breathe as long as the hands are up. Lower down the hands slowly and exhale breath, repeat it five times and relax.

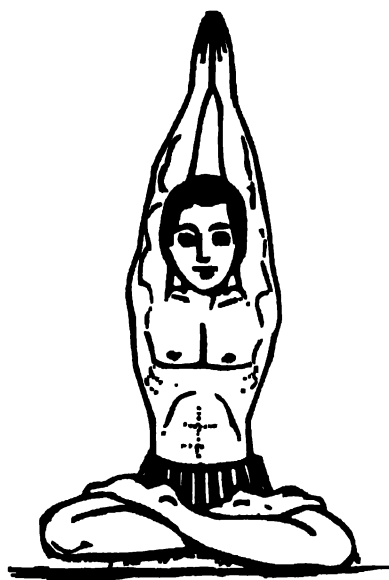


Fig. 6.25 : Parvatasana

19. Supt Vajrasana



Fig. 6.26 : Supta Vajrasana

Technique

Sit on a folded blanket with buttock on the floor between the heels in vajrasana posture. Exhaling, lean back slowly and lower the elbows to the floor. Support the trunk for a couple of seconds on the elbows to the floor. Fold and lock the arms above the head. Lie for a

couple of seconds in this posture, breathe slowly and deeply. Then sit up again supporting on the elbows and feel relaxed.

20. Padam Asana



Fig. 6.27: Padmasana

Technique

Sit on the folded blanket with your legs outstretched. Bend each leg and place each foot on the opposite thigh, soles turned upwards. Pull the foot as high as you can. Keep the palms of the right and left hand on the right and left knees, touching the thumbs with tips of index fingers and gaze at the tip of the nose. Keep the head, neck and spinal column straight and erect and breathe slowly.

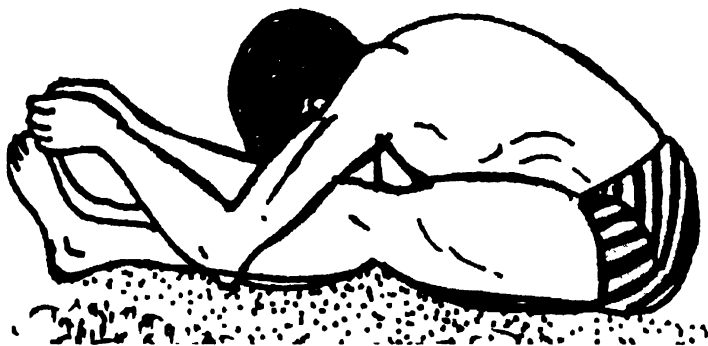
21. Paschimottan Asana

Fig. 6.28 : Paschimottanasana

Technique

Lie flat on the blanket and stretch the arms over the head and breathe in slowly and normally. Catch hold of the toes with fingers, contracting the abdomen and gently pressing the head against the knees. Pull the toe with the arms and lower the elbows. The bending should be done very slowly.

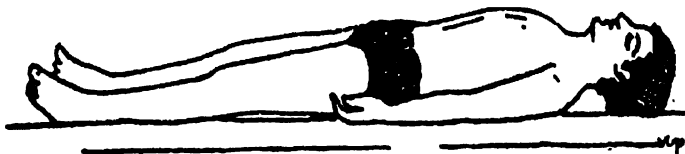
22. Shavasana

Fig. 6.29 : Shavasana

Technique

On a soft carpet or blanket lie full length on back with arms away from the palm, body facing upward and feet slightly apart. Finally keep the mind free. Start breathing slowly, deeply and rhythmically. The technique of this Asana must be followed carefully. Rhythmic and deep breathing are absolutely necessary for concentration which gives complete relaxation. After deep breathing, retain breath for a couple of second and exhale breath.

7

Memory and Meditation

"Pleasure and pain, gain or loss, are experienced only in a certain state of mind.

In meditation on the self, there is only the one perfect bliss"

— Swami Muktananda

From time immemorial man has done impossible tasks on the basis of his meditative strength. Meditation means taking the mind away from day to day activities and focussing it on one object, image, or one point. It is the controlling of our mind and thought processes. Meditation implies concentration of the mind and relaxation of the body. We concentrate to have direct communion with our inner self.

Today, we are living in an age of explosions, explorations and paradoxes. We have conquered the unconquerable and achieved things beyond the wildest dreams of our ancestors. Science has changed our world into a place of abundance and plenty. It has increased agricultural produces by mechanizing agriculture, fertilizers and chemicals have increased fertility of the

soil. Men no longer suffer from the fatal diseases like Plague, Cholera, Malaria, Small pox, Pneumonia and Typhoid. But keeping in mind the diseases conquered the comforts provided and the superstitions eradicated let us pose a question to our selves are we happier than our forefather? Generally people would say, "Yes". But some are happier and some are miserable than their forefathers— A business magnate or a film star, flooded with money and surrounded by all luxuries, is supposed to be more happy than his or her starving forefathers who were steeped in poverty, disease and ignorance rightly or wrongly the general belief is that the common masses today are happier than their forefathers. Today, they have more and better food to eat, they wear better clothes and have better facilities of health and entertainment such as the Cinema, Television, V.C.R. and V.C.P. If we did not have these things, we would feel miserable. But our forefathers who did not have them felt unhappy. It is said world does not progress, it only changes. Old troubles disappear, giving place to new comforts. But these new comforts bring fresh troubles too. New joy brings new sorrows with new curses, we come to the same question Are we happier today? Yes, we are happier. If happiness means motor cars, decent houses, cinema and television. We are happier if longer life and freedom from old diseases means happiness. We are happy if happiness means freedom and equality for men and women. But why modern man has lost his peace of mind. Why he is under stress and tension all the time. More money has meant more worries. Greater leisure leads to more of the present. There is an intellectual and spiritual vacuum in every heart. Man has become a slave of the machine. Great virtues like love, compassion, sympathy, fellow, feeling and affection have become out of vogue. Science has conquered old diseases, but civilization has brought new diseases like cancer, Hiv, aids, hypertension, diabetes, heart trouble, insomnia and sick



Fig. 7.1 : Meditative Pose in Padamasana

stomach of which our forefathers knew very little. Today millions and millions of people suffer from emotional instability, anxiety, tension, fear, frustration and loneliness. There have been occasions when each of us has got up from the bed feeling tired and depressed. However there is remedy for all such mental and physical ailments and disorders. Well that panacea is meditation. Meditation is that important method which can bring zest and sparkle into our lives and make our lives

cheerful and purposeful. Meditation is a great medicine. Meditation alone can give us soothing effect feeling of rest and inner peace.

There are different methods and techniques for meditation. When we start meditation our mind starts playing hide and seek game with us. So we have to control the mind it is easy to say but very difficult to control the mind.

Not only a common man but even saints and sages have faced many obstacles in the path of meditation. Meditation is of no use if our minds are not properly disciplined if emotions are mistaken for devotion. If we are under stress, tension, depression and anxieties. One should inculcate in oneself the positive qualities of celibacy, truthfulness, love, tolerance, service, mercy and forgiveness unholy thoughts and evil qualities like anger, fear, pride, jealousy hatred, and ego do influence the mind and nervous system. According to great sage Patanjali, some foremost obstacles in meditation are disease, langour, doubt, sensuality, laziness, and wavering mind. It will be difficult to practise concentration and meditation. If our mind is not disciplined senses not curbed. Drug abuse and alcohol abuse do not solve problems. They have direct adverse effect on our nervous system. Moreover, alcohol is an important factor in broken homes, problem families, and family disintegration. These are some of the personal or internal obstacles in the path of meditation. If an individual does not overcome these obstacles, they can prove detrigent agents and shatter all his hopes, aspirations and achievements. In any human activity, concentration is of utmost importance. Concentration is a faculty of body and mind. Physical concentration means gathering together every ounce of bodily strength and directing it towards one point or object mental concentration is rather difficult. The true form of

concentration requires a dynamic attitude. Often when the mind is disturbed by the memory of painful experiences, disappointments, different associations we strive to empty the mind to cease thinking with the hope that we will concentrate on a single object. But psychologists say that we should not strive to empty the mind of thoughts, rather we should fill it so completely with one vital vibrant thought that no other thought can find any place. We cannot achieve complete concentration all at once. We shall have to make efforts in getting concentration. According to Swami Parmanand, "The practice of concentration is very much like keeping a musical instrument in tune. A musician who loves his instrument does not neglect it". Swami Ramkrishna gives a vivid illustration in regard to mental concentration. He says, "Every man should make a legitimate effort to keep his mind in a good, clean, concentration condition, otherwise it grows unsightly—like a metal vessel which becomes tarnished if it is not polished everyday". When we sit for meditation, past memories both happy and painful, past experiences, will recur again and again. They will express themselves with redoubled force again and again. The best thing to avoid those past memories is not to look back, and be concerned with the present. We will be free from stress and tension worries, and anxieties. The mind falls into three general states these correspond to the three Gunas or qualities of matter, called Tamas, Rajas and Sattwa. These qualities are innate in every living thing and manifest in the human mind as the sub conscious, conscious and super conscious. The first quality is that of darkness inertia, the brute state. In this state the mind lacks in power to differentiate between right and wrong. The second quality is that of excessive ambition. Egotism and arrogance. In this state man's energies are dissipated and wasted. With the third quality Sattwa—the mind grows serene and illumined.

When the mind is concentrated, we do not hear anything, we do not see anything. All our senses are in abeyance. External sounds, external visions can be overcome by concentration.

After attaining concentration we start meditation. After concentration, breath is the next thing to be considered. Breath is the medium through which the life current (Prana) flows into us. We all breathe derive proper benefit from our breathing. This is because we do breathe. We breathe automatically involuntarily, unconsciously but we do not know how to breathe consciously, properly and rhythmically, when we understand how to regulate and control our breath, we fill ourselves with Prana (vital energy) and eliminate all our impurities. During meditation we should pay special attention to the manner in which we breathe. Our breathing should be diaphragmatic. The stomach should bulge out when we breathe in and contract when we let the air out. Breath is controlled by thought. Whenever our mind is excited, irritated or disturbed, our breathing becomes irregular and unrhythmic. Conscious, rhythmic breathing, will enable us to store up the vital energy and restore health.

According to Hindu scriptures the breath goes in with the sound of 'So' and comes out with the sound of 'Ham'. Rishi Valmiki was initiated by Muni Narada in the technique of taking the inverted name which is called Ajapa Japa, Mahatma Gandhi has mentioned that the 'Name' should come out from within the heart and not only from the mouth. When the name comes out from the mouth, it is called, Ajapa and when it comes from the heart it is called Ajapa. The awareness of 'ham' starts from the navel center. When it comes out it is reversed. So we produce 'ham' from the navel center and when it has been produce we reverse it by 'So' now it becomes 'Hanso'. Patanjali has said that "First of all one has to

concentrate on a definite object with open eyes, then one must meditate with closed eyes. This is the concentration on a subtle form. Then one must concentrate on the simple awareness of its presence. In the Gita, there is a clear reference to Ajapa, "having equalized the Prana and Apana moving in the nasal—region let the flow of the ingoing and outgoing breaths in the nostrils be equal in length and duration". Thus the practice of Ajapa is very important before discussing the actual technique of Ajapa let us adduce an example. If a pin is pricked in your hand, you get pain and I ask you where is the pain, you will say it is in your mind. This is locating the pain. In Yoga also there is process of locating consciousness. Your consciousness or awareness is now extrovert and dissipated but it can be located at any particular centre of your body. Suppose, while meditative you see some light but you see it for a couple of seconds and then light disappears. In Yogic language this is called locating the consciousness we normally do not know where our astral body is but through the practice of Ajapa we will be able to know where our awareness is. Swami Satyanad Saraswati has given a fine illustration in this regard, "There are two birds black and white tied to a peg with two ropes. They fly for a while but have to come back because they are tied. They fly many times ultimately they get tired and sleep peacefully near the peg. This refers to Ida and Pingla. They are two birds as it were. The flow in the right nostril corresponds to Pingla (sunchannel) and the flow in the left nostril corresponds to Ida (moonchannel). The alternate functioning of Ida and Pingla keeps one away from one's inner consciousness. It is only when Ida and Pingla are tied and like two birds they retire to the center, the self, that the Sushumna awakens and the process of meditation becomes automatic. According to Swara Yoga when both the nostrils flow equally it indicates that the Sushumna is flowing. When the

Sushumna does function, one does not achieve concentration. So it is important that the functioning Ida and Pingla should be harmonized by Yoga practices and meditation.

Next important step in Ajapa Yoga is that one should keep the mind fixed on the centre of meditation. It may be Ajna Chakra (eyebrow centre) or Anahata Chakra (the heart center), this is called Ishwara Pranidhana. Three things are very significant in Ajapa Yoga—Tapasya (sustained endurance), Swadhyaya (continuous self observation) and Ishwara Pranidhana (fixing the mind on the center of meditation). Three more points included in Ajapa Yoga is deep breathing relaxation and total awareness. Not a single breath should go noticed. We must have increasing awareness of every ingoing and outgoing breath. As soon as the mind wanders, we bring it back to breath. This Ajapa is adjusting a mantra to the breathing process. The first most important point in Ajapa Yoga is that we have to breathe in and out consciously and not automatically. When the concentration becomes deep, the breathing will become slow. Now we come to the technique of Ajapa Yoga. The technique is not difficult. Sit in Siddhasana or Padmasana and keep the head neck and back straight start deep breathing. Then recite 'So' with the ingoing breath. Feel that you are introspecting on 'Soham'. There should be no mental pause between 'So' and 'ham'. After repeating Soham ten times take your mind to the place in between the two eyebrows and concentrate on Ajna Chakra at the eyebrow center. Think of nothing. Let this continue for a couple of minutes. After that again start Ajapa and adjust any mantra you like with breathing process.

Researches have proved that meditation is especially useful for people suffering from ailments like stress, depression, hypertension insomnia and amnesia. In many cases it is also being prescribed to patients

suffering from more serious disorders. Meditation helps the patients develop a positive frame of mind. There are different methods and techniques of meditation. Sometimes one gets confused which method to select and which to reject. In general meditation with Ajapa and Japa is simple and effective. Herbert Benson, Associate Professor of medicine at the Harvard University Boston, has done extensive work in this field. He calls it 'relaxation response' which is nothing but meditation. In order to practice this effectively four essential things are required (1) A quiet environment (2) A passive attitude (3) A comfortable position (4) A mental device or mantra.

They can be easily adopted by all to control the mind and various disorders.

According to Yogic philosophy there are four states of consciousness, (1) waking state (2) dreaming state (3) dreamless sleeping state (4) Turiya state or state of super consciousness. Realisation of self is the most important state to be achieved by meditation. Alpha-Biofeedback has much use in the study of meditation according to Prof. K.N.Udupa, "there are several reports to indicate that practitioners of meditation develop large quantities of EEG Alpha activity. Therefore as meditation continues the frequency of Alpha wave becomes less followed by development of Theta waves. Therefore from the Theta practical point of view meditation and alpha biofeed back appear to be similar and if both could be combined it will have added value for getting a quicker result. It has been established by the modern psychologists that we can improve the memory process considerably with the system of Yoga particularly Pranayama and Meditation. It is known that people living in nutritionally deficient state in the developing countries are having poor turn over of proteins in their body. Since the memory is nothing but a turnover of RNA and protein synthesis it is logical to expect that their memorizing power is also

much less than of those living in more advanced countries. Memory power can be improved in the people living in less advanced countries by using some Yogic methods particularly Pranayama, Asanas, and Meditation.

8

Memory and Yogic Diet

“There are illnesses as that can
only be treated by nutrition.”

—**Hippocrates**

Food is one of the fundamental necessities of life. Food, is required to supply the body building materials necessary for an infant to grow into an adult or for an adult to replace the daily wear and tear in tissues appearing in the course of normal living. Food also provides certain materials needed in small amounts by the body which keep the body in proper shape and functioning. Optimum nutrition is very much required for maintenance of good health. Diet is nothing else but a combination of essential foods as they are available in nature. Such a combination is essential because there is not single food which will give man each and every nutrient in proper proportion. For development of health and for nourishment of the cells, the fundamental principles involved are 1. Water, 2. proteins, 3. carbohydrates and fats, 4. vitamins and, 5. minerals.

Water forms about 60% of the body weight and is an important constituent of all body cells. All the chemical reactions and processes in the body take place in the medium of water. We drink water when we feel thirsty.

Recent research studies have shown that there are several other signs and symptoms of inadequate water in some parts of the body, ignoring these signs and symptoms can lead to several diseases. Drinking adequate water is good for health. Sufficient quantity of water should therefore, be ingested daily. More water is required in summer than in winter. It is necessary to purify water to be used for drinking. Impurities of soft water, if present can adversely affect the health, when the body receives less water, histamine, a chemical compound present in all cells, initiates a system of water. This system prioritizes the distribution of water to more important organs of the body such as brain, heart and lungs. Histamine directs and operates a system of chemicals called neurotransmitters. These chemicals either modify or transmit impulses in nerves. As age advances, water content in the cells decreases. Since the water content in each cell plays an important role in maintaining its normal function, inadequate water can lead to loss of some functions. The flow of water inside and outside the cells generates energy. The energy is stored in body along with other chemical sources of energy in the body. Water helps transport the chemical substances produced by the brain that carry its messages to different parts of the body.

Proteins are very complex nitrogen containing substances. These are formed by different combination of about 20 amino-acids. Ten of the amino-acids are absolutely essential for proper nutrition and a diet should provides these in proper proportion. Proteins are essential for the growth and repair of the tissues of the body and also for body defence. Daily requirement of proteins for adult is about 1gm. per kg, body weight. In children, the daily requirement is higher and because of their active growth they may require 2 to 3.5 gms per kg, body weight. Nutritive value of a protein is dependent

on its essential amino acid make up. The main sources of protein are milk. Legumes, nuts, pulses, beans, soyabeans, cheese, cereals and eggs. The deficiency symptoms of proteins are weak muscles, poor body tone, retarded mental, reactions, lower resistance to disease.

Carbohydrates are chemical compounds containing carbon hydrogen and oxygen. They are formed by combinations of various sugars and occur in nature as sugars starch and cellulose depending on the simplicity or complexity of the chemical structure. Carbohydrates give energy on which all the activities of life are dependent. One gram of carbohydrate yields about 4 calories. Body cells utilise simple sugars to form heat which is converted into energy for maintaining life. Cellulose is indigestible, it also gives roughage which is valuable as a mechanical stimulant to the bowel and prevents constipation. Indian diets contain proportionately higher quantity of the carbohydrates and much less of the proteins. After supplying the body needs for proteins and fats sufficient quantity of carbohydrates should be included in our diet to make up the total caloric requirements.

Fats are also the energy giving foods but these are concentrated sources. One gram of fat gives 9 calories approximately. These fats in addition give taste to the food and make the diet palatable. This is why people crave for fried foods and roasted foods. Fats are costly and for the proper health of the body one should not have more than 15% of the total calories from the fats. Daily intake of about 45 to 60 gms for an adult is required. It is preferable to have a considerable portion of this quantity from the vegetable oils. Rich sources of carbohydrates are sugars, syrups, jams, cereals such as rice, potatoes and rich sources of fats are groundnuts oil, cottonseed sesame, nuts, butter, ghee, cream, cheese and margarine.

Vitamins play vital role in the growth and maintenance of the body. Vitamins do not give any calories but they are very important in regulating the chemical processes in the body metabolism. Vitamins stimulate growth of the body and prevent a number of deficiency diseases. Vitamins are known as 'Protective foods'. They are usually referred to by letters. Vitamins A,D,E and K are fat soluble the rest are water soluble.

Vitamins—Their Important Sources

<i>Vitamins</i>	<i>Rich Sources</i>
Vitamin A	All Vegetables, Yellow Fruits, Fish Oil Tomatoes, Ghee, Milk, Yellow Butter, Eggs, .
Vitamin B	Yeast layers of the Grains, Rice and Wheat Ground Nuts, Pulses.
Vitamins B ₂	Milk and Milk Products, Yeast Eggs,
Vitamins B ₆	Green Vegetables.
Vitamins B ₁₂	Milk, Meat, Liver.
Nicotinic Acid	Wheat germ, Potatoes, Pulses, Nuts, Tomatoes, Leafy Vegetables.
Folic Acid	Green Vegetables, Liver, Pulses.
Vitamin C	Amla, Citrus Fruits, Tomatoes, Sprouted Grains, Leafy Vegetables.
Vitamins D	Milk, Liver, Eggs, Fish, Liver Oil.
Vitamins E	Wheat Germ Oil, Leafy Vegetables, Milk, Butter.
Vitamins K	Green Vegetables, Tomatoes.
Calcium	Milk, Milk Products, Green Leafy Vegetables, Millets.
Iron	Cereals, Pulses, Vegetables.

Proteins, carbohydrates, fats, minerals and vitamins are collectively known as nutrients. Among these proteins form the chief substance of our muscles and

organs and are an important bodybuilding material. For the maintenance of good health the nutrients have to be supplied to the body in proper proportions. Most foods contain all the nutrients but no single food contains all the nutrients in the required proportions. Some foods may be rich in proteins some in carbohydrates and some in vitamins. An unbalanced supply of nutrients to the body may lead to many physical and mental ailments and disorders.

With population explosion and rising prices, people have taken to malpractices amongst which is the menace of adulteration of food. Insufficient food and that too lacking in the necessary nutrients adversely affects the health of children, men and women. A person harassed by the shooting rise in prices tries to save money by buying cheap food stuffs which may adversely affect his health. The evil effects of adulteration of food are often insidious and lead to far reaching effects. Sometime ago there were reports from U.P., Kashmir and West Bengal of cases having suffered from dropsy, heart disease and even death due to adulteration of mustard oil. There were also cases of dimness of vision due to development of glaucoma, often resulting in total blindness. Investigations showed that the cause was adulteration of sweet oil with argamone oil. The problem of adulteration is alarming in our country. Every year thousands of samples collected from different shops are examined and about 40 to 50% of these are found to be adulterated. Articles that are low in production and greater in demand are generally adulterated. Generally substances which are cheap or of low quality are mixed, sand, small pebbles, gravel or dust are often mixed with food grains powder of soft stone or quick lime is mixed with wheat flour, gram flour, or chilly powder. Flour of saffron coloured lakhi pulse is sometimes mixed with gram flour. If lakhi pulse is consumed continuously for

Table 8.1: Balanced Diet RDA (Recommended Daily Allowance)

Vegetarian Foods	Protein	Fat	Mineral Salt	Carbo Hydrates	Cactum	Phos Phorus	Iron	Calories Per 100 GMS
Wheat	12.1	1.7	1.8	72.2	0.04	0.32	7.3	328
Rice	8.5	0.6	0.9	77.4	0.01	0.28	2.8	344
Maize	11.1	3.6	1.5	66.2	0.01	0.33	2.1	342
Bajara	11.6	5.0	2.7	67.1	0.05	0.35	8.8	360
Jawari	11.5	1.3	1.5	69.3	0.03	0.23	3.7	355
Ragi	7.3	1.3	1.2	72.0	0.334	0.21	6.4	328
Green Gram	24.0	1.3	0.6	56.6	0.14	0.28	8.4	334
Black Gram	24.0	1.4	3.4	60.3	0.20	0.37	9.8	350
Red Gram	22.3	1.7	3.6	57.2	0.14	0.26	8.8	353
Lentil	25.1	0.7	2.1	59.7	0.13	0.25	2.0	346
Peas	22.9	1.4	2.3	63.5	0.03	0.36	5.0	358
Bengal Gram	22.5	5.2	2.2	58.9	0.07	0.31	8.9	372
Cow Grani	24.6	0.7	3.2	55.7	0.07	0.49	3.8	327

(Contd. ...)

Vegetarian Foods		Protein	Fat	Mineral Salt	Carbo Hydrates	Calcium	Phos Phorus	Iron	Calories Per 100 GMS
Gingelly	तिल	18.3	43.3	5.2	25.2	1.44	0.57	1.05	564
Groundnut	मूँगफली	31.5	39.8	2.3	19.3	0.05	0.39	1.6	549
Soya Beans	सोयाबीन	43.2	19.5	4.6	22.9	0.24	0.69	11.5	432
Cumin	जीरा	18.7	15.0	5.8	36.6	1.08	0.49	31.0	356
Fenugreek	मेथी	26.2	5.8	3.0	44.1	0.16	0.37	14.1	333
Ghee	घी	=	98.0	=	=	=	=	=	900
Milk Powder	लप्रेय दूध	38.0	0.1	6.8	15.0	1.37	1.00	1.4	357
Almonds	बादाम	20.8	58.9	2.9	10.5	0.23	0.49	=	655
Pis*a	पिस्ता	19.8	53.5	2.8	16.1	0.14	0.43	=	626
Coconut	नायिल	6.8	62.3	1.6	18.4	=	=	=	662
Bajana	केला	1.2	0.3	0.8	27.2	0.01	0.05	=	116
Apple	सेव	0.3	0.5	0.3	13.4	0.01	0.02	=	59
Grapes	द्राक्ष (अंगूर)	1.0	0.1	0.4	10.0	0.03	0.02	=	45
Sweet Lime	मोसंबी	0.8	0.3	0.7	9.3	0.09	0.02	=	43
Pineapple	अनानस	7.6	0.1	0.5	12.0	0.02	0.01	=	50

(Contd. ...)

Vegetarian Foods		Protein	Fat	Mineral Salt	Carbo Hydrates	Calcium	Phos Phorus	Iron	Calories Per 100 GMS
Water Chestnuts	सिंघाडा	13.4	0.8	3.1	68.9	=	=	=	330
Beans	एली	7.4	1.0	1.6	29.8	=	=	=	158
Beal Fruit	बेल फल	1.8	0.3	1.7	31.8	=	=	=	137
Cashew	काजू	21.2	46.9	2.4	22.3	0.05	0.45	=	596
Walnuts	अखरोट	15.6	64.5	1.8	11.0	0.10	0.38	=	687
Cherry	चेरी	1.1	0.5	0.8	13.8	=	=	=	64
Guavas	अमरुद	0.9	0.3	0.7	11.2	0.01	0.04	=	51
Amla	अमला	0.5	0.1	3.5	13.7	0.05	0.02	=	58
Papaya	पपीता	0.6	0.1	0.5	7.2	0.01	0.01	=	32
Mango	आम	0.6	0.4	0.4	16.9	0.01	0.02	=	74
Tomatoes	टमाटर	1.5	0.2	1.2	6.7	0.01	0.02	=	35
Ladies Finger	भिंडी	1.9	0.2	0.7	6.4	0.08	0.07	=	35
Palak Leaves	पालक	2.0	0.7	1.7	2.9	0.06	0.01	=	26
Methi Leaves	मेथी पत्ते	4.4	0.9	1.5	6.0	0.47	0.05	=	49
Limes	नींबू	1.0	0.9	0.3	11.1	0.07	0.01	=	57

(Contd. ...)

Vegetarian Foods		Protein	Fat	Mineral Salt	Carbo Hydrates	Calcium	Phos Phorus	Iron	Calories Per 100 GMS
Orang	संतरा	0.7	0.2	0.3	10.9	0.05	0.02	=	48
Dates	खजूर	2.5	0.4	2.1	75.8	0.07	0.08	=	317
Flesh Foods									
Egg	अंडा	13.3	13.3	1.0	=	0.06	0.22	2.1	173
Fish	मछली	22.6	0.6	0.8	=	0.02	0.19	0.9	91
Mutton	बकरी मांस	18.5	13.3	1.3	=	0.15	0.15	2.5	194
Pork	सुअर मांस	18.7	4.4	1.0	=	0.03	0.2	2.3	114

couple of months, it result in a disease called lathyrism of which lameness is one of the symptoms. Cream of milk is separated and water is mixed with milk. If water is infected with germs, it causes diseases like diarrhoea, dysentery and typhoid powder of sweet potato is mixed with milk to increase its consistency and weight. Pulp of blotting paper is mixed with milk to increase its consistency and weight. Pulp of blotting paper is mixed with the sweet dish of thickly boiled milk known as 'Basundi' vanaspati oil is mixed with butter or ghee, an inferior cheap variety of oil is mixed with an oil that is sold at a high price. Traders sometimes mix the argamone oil or some mineral oil like white oil, transformer, spindle or switch oil which is injurious to brain and can impair memory, chilly powder is mixed with salt, dust of wood, earth, fine sand or talcum powder and injurious colours prepared from coltar are added to make it attractively red. Pulses and turmeric are rendered yellow with the use of the injurious colour of metallic yellow. The used tea leaves are coloured with ferrous sulphate and mixed with fresh tea leaves fine sugar is mixed washing soda. Cinnamon is mixed with the bark of other trees after colouring and scenting the same. It can also cause damage to brain and impair memory. Plumes of maize corns or fine wooden dust are coloured with saffron colour and are mixed with real saffron. Saw dust or even horse dung is mixed with spices. Powdered tamarind seeds are sometimes mixed with coffee powder. It can be also cause loss of memory. As phatida is very often adulterated. Other drinks and sweets are often mixed with injurious coal tar colours whose use is prohibited by law. It can damage nervous system and circulatory system. Sacrine and the injurious chemical esaline whose use is prohibited is used instead of sugar. It can also damage nervous system and cause loss of memory.

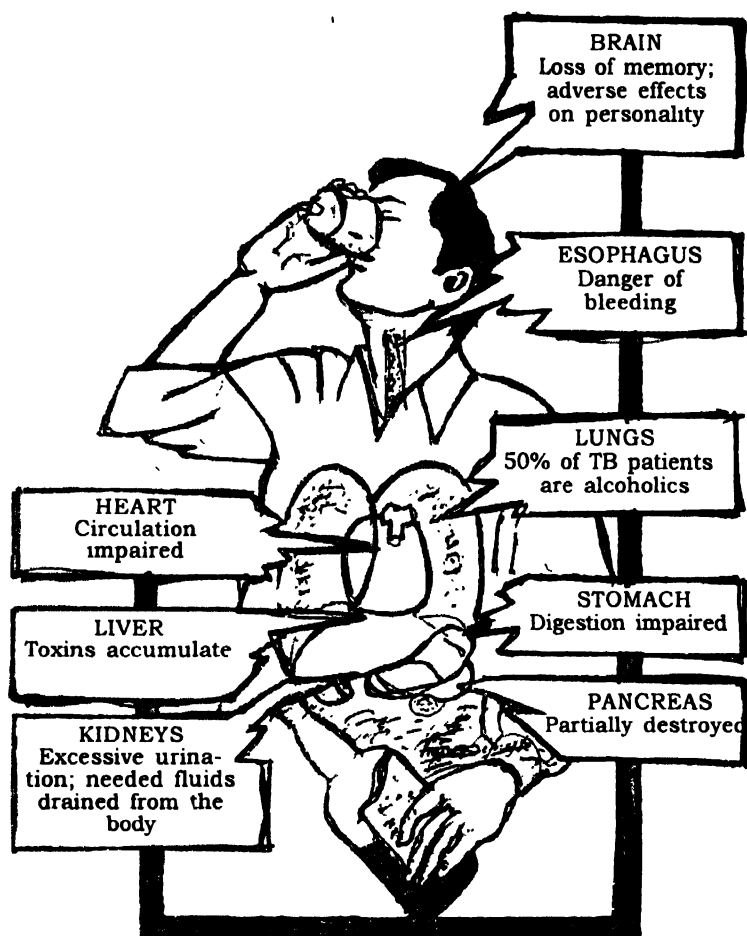


Fig. 8.1: Effects of Alcohol

Nutrition plays a significant role in our day to day life. Our health energy, etc., depend upon our diet. Abnormal diet, adulterated diet and inadequate diet lead to a large number of mental and physical ailments and disorders. Dietetic habits vary from person to person. The health and disease of man can be influenced by man's total environment. The total environment can be divided into internal and external environment. Internal

environment comprises the inside of the human body. The external environment consists of all that exists outside the human body. Every bit of human surrounding is continuously involved with the dynamic reactions with the internal environment of man. The external environment may be subdivided as 1. Physical, 2. Biological and 3. Social. The physical environment is nothing but all the inanimate matter such as air, water and food with which man comes in contact physically. The biological environment consists of all the biological world around man, for instance, the germs, bacteria etc. social environment includes all the factors in the social life of man such as the customs, traditions, education, culture, civilization etc. The environment is vast but there are some important factors which should be controlled before any society can hope to reach the optimum level of health and minimum level of diseases.

In the physical environment, the vital factors are air, water and food. Air is required continuously by a living individual. Water constitutes nearly 60% of the body and the rest of the elements are provided by food. These three fundamental essential components are must for man's life. The health of an individual depends on the quality and quantity of the supplies of the three basic components. Similarly the level disease in the individual is influenced by the ups and downs of these vital supplies. The science of control of these vital factors is known as "Environmental sanitation". In modern therapeutics, hygienic disposal of faecal matter and other wastes and also the hygienic of food and water supply are necessary for health and prevention of disease.

Air has a most important role for health. Some diseases spread by inhalation of droplets containing the germs mostly from the nose or mouth to the other. The droplets are transmitted through the medium of air. It has been established that overcrowded, ill-ventilated and badly

lighted houses lead to high incidence of diseases especially of Respiratory System.

The Biological environment comprises all the living world around man. The most important factors of this environment from health point of view are the micro-organisms or the germs. As a result of evolutionary processes, these germs, happen to enter the body of man and grow as parasites in their struggle for existence. If a person falls sick as a result of infection, then either he recovers or he dies. As such the germs can propagate only by transfer from man to man.

The social environment comprises, society, culture, educations, community organisations, economic condition etc. Social heritage is man made. External environment can also be divided into the man made and the natural. Natural environment is what man shares with other animals. However, in the man made environment, man has adjusted and modified the natural environment. Today, the social environment plays a significant role in the disease trends. Levels of health and disease correspond to social heritage in terms of standard of living, education, development and organisation of the community health agencies. Many problems of health and disease are mostly, sociological, provision of pure water, sanitary disposal of wastes, hygienic and balanced diet, and adequate healthy housing are the basic necessities of health. The drinking water should be free from all the impurities affecting health, the disease producing germs. Food should be of such quality and necessary energy growth repair of body tissues. Adequate housing is also needed for health and the prevention of disease. A good house should have cross ventilation, adequate natural lighting in every room.

With the advancement in the science of nutrition, the role of nutrition is becoming ever more apparent in

the function of the nervous system. It has been established that carbohydrate is the chief nutrient oxidized by the brain for energy and when any factor interferes with its normal utilization, functional disorders may occur. Vitamins of the B complex have been remarkably associated with function of the nervous system. When deficiency is prolonged structural changes may take place in the peripheral nerves the spinal cord and the brain. N.Jolliffe and R.D.Williams have in their book "Observations of induced Thiamine deficiency in Man" shown the regular occurrence of symptoms when Thiamine-depleted diets were fed to human beings. These individuals become highly irritable quarrelsome, depressed with impaired memories. They failed to perform their usual tasks, were suspicious, uncooperative and fearful. They had numerous complaints concerning gastro intestinal disturbances, increased sensitivity to pain, shortness of breath, burning of the feet and forgetfulness. When Thiamine was administered the symptoms quickly disappeared. The restoration of mental stability to the deranged pellagrin through the mere use of niacin or nourishing food has been an outstanding advance in neuropsychiatry as well as in nutrition. Emotional disorders influence the appetite and digestion. Individuals who have been mentally deranged for a long period of time may have been eating poorly and may have experienced gastro distress when they did eat so that they are subject to multiple nutritional deficiencies. These in turn may further aggravate the initial disturbances. Diet should therefore be planned to provide liberal intake of the essential nutrients. The service of food attractive to the eye, tempting of odour, satisfying to the palate, in cheerful surroundings can be of great psychological value.

Persons having impaired memory or suffering from loss of memory should take diet which can provide

adequate quantity of vitamin B₉, sodium, glutamine phenylalanine, threonine and valine, black gram, bajra, jawar, maize, wheat flour, bengal gram split green gram, lentil, spinach, cluster beans, amaranth, ladies fingers, French beans, groundnuts, coconut and eggs, are rich sources of vitamin B₉. (folic acid) vitamin B₉ (folic acid) in combination with vitamin B₁₂ is necessary for the formation and multiplication of red blood cells including nerve cells and for manufacturing a number of nerve transmitters, pulses and legumes such as Bengal gram (channa) and black gram (urad) are rich in folic acid. Green vegetables are also rich sources of folic acid. Bengal gram (channa) is one of the most popular pulses in India. It is used in the form of daal. The whole dried bengal gram seeds are either cooked or boiled. They are also consumed raw after soaking them in water. Bengal gram has many medicinal uses. Soaked in water and chewed in the morning with honey can improve memory. Cooked germinated grain is a wholesome food for persons having impaired memory. Black gram (urad) is another popular pulses of India. Black gram is boiled and eaten whole or after splitting into daal. It is used in various culinary preparation like idli, curries and papad. The green pods are eaten as vegetables and they are highly nutritious. Black gram is an aphrodisiac and nerve tonic. It should not be taken by those who are suffering from rheumatic diseases as it contains oxalic acid in high concentration black gram eaten with half boiled egg is an excellent tonic for improving memory and schizophrenia. Green Gram (mung) is another wholesome among pulses in India. It is free from heaviness and tendency to flatulence which is associated with other pulses. It is used in the form of daal. The sprouted mung beans have lot of nutritious value.

Nuts and seeds are considered as the symbol of resurrection. Nuts and seeds contain the embryo, the reproductive power which is of great importance for the lives of human beings. They are excellent sources of protein and the essential unsaturated fatty acids which are necessary for health. Almond (badam) known as the king of nuts is a highly nutritious food. The best way of using almonds is to soak them in water and take them with milk, after peeling of the skin. Almond is best food for improving memory. The medicinal values of almonds arise chiefly from pharmacodynamic action of copper, iron, phosphorus and vitamin B. These chemicals exert a synergic action and help the formation of new blood cells and help in maintaining the smooth, physiological functions of brain and nerves. The almond is highly beneficial in preserving the vitality of the brain.

Theonine is an important amino acid. It is deficient in many food grains but present in most pulses. A combination of food grains and pulses provides an adequate supply of these amino acids in fruits and green vegetables. Theonine is found in leafy vegetables, whole grains, pulses, nuts, apples, peaches and figs. Theonine is necessary for the proper development and functioning of the brain.

Another important amino acid known as valine is essential for body growth. It is needed for the proper and efficient performance of the nervous system. The main sources of valine are leafy vegetables, finger millet, rice and other cereals, pulses, pinto seeds, pistachio, valine has been described as helpful in disorders of the muscles, mental and emotional upsets, stress, tension, insomnia and nervousness. Recent advances in the science of nutrition have reported that valine can play a vital role in improvement of memory and in the healthy functioning of the brain.

PART-XX
HIV AND AIDS

1

The Gravest Challenge

Time is out of joint,
O cursed spite,
Ever I was born to set it right.

—Shakespeare

Today, as we confront history's most complex economic, social and psychological problems, a great hiatus exists between what we profess and what we are. Our culture is honeycombed with false pretences. Our young men and women have lost their moorings, they have lost their abilities to make their own destinies. There is lot of frustration with which the youth of today frets and fumes. The period of post independence is a period of trials and tribulations failures and fumbings. It is also a period of gradual awakening of the youth as a potential power in society. The selfish, grabbing, greedy callous and corrupt leadership of the country have made the young angry and cynical. The influence of mass media on youth cannot be under estimated. Mass media viz cinema, radio, newspapers, magazines, television have emerged to be very powerful sex social phenomenon. There is also problem of urbanization. It

is often noted that the process of urbanization is done without much in rural plan and guidance. People in rural areas are rapidly dislocated to make adjustments in the name of industrialisation, and modernisation.

Today, Trafficking and the Drug abuse has been on the rise in third world. As reported by a UN survey and compiled by the international Narcotics Control Board (January 2003). The survey said that drug abuse rose in Indias major cities and criminals in Africa used new intercontinental air links to increase the domestic drug trade while domestic consumption of cocaine grew in south and central America. The study said that the number of soviet drug abusers, mostly cannabis, almost doubled in South East Asia, illicit opium China, traffickers significantly increased heroin smuggling across Southern Border to Macao and Hong Kong Heroin abuse in southern Border Area was spreading in Japan increased five fold. Heroin was most abused in Malaysia with an estimated 120000 addicts. The report estimated 110000 to 130000 addicts in Australia. Drug abuse rose in Bangladesh with an estimated 60000 users. Alone in Dhaka, Nepal remained a major producer of cannabis. Sri Lanka continues to serve as a transit country for heroin from India to the west Nepal and estimated 30000 drug abusers and Sri Lanka between 40000 and 50000 mostly of heroin and cannabis. The price of heroin in Iran rose five fold in recent years and drug abusers were 3.5 million Pakistan abusers were addicted to heroin. Indian presents a different scenario. Apart from becoming a transit camp for narcotics, India is emerging as a major grower of cannabis (ganja) and opium. Being sandwiched between the golden crescent and the golden triangle. It is turning out to be a major abuser of narcotics. The survey conducted by the directorate of social welfare Delhi Administration (1999) has revealed that there was increasing trend of drug users and

abusers particularly among youth in Delhi, more than one lakh youth belonging to prosperous as well as poor families are addicted to drugs. At an International conference held in Calcutta in December 2001, special agent of the Us drug enforcement agency noted that drug manufacturing units in Bihar, Uttar Pradesh and Madhya Pradesh were supplying addicts even in Bangladesh. Till about 15 years back, cases of drug in Manipur were only mere incidents. Today, it has taken so much firm roots that in Imphal there is rarely a home that has not been invaded by the drug menace. One out of every four youths in the state is a drug addict. Over 10 percent of our heroin seizures last year were from India. Especially in places like Bara Banki, Gazipur and Varanasi. The conversion of opium to heroin is a flourishing racket there. According to a sample survey conducted by the Bureau of Narcotics and Drugs Control and the DAIRRC (Drug Abuse Information and Rehabilitation Research Centre) Mumbai, addicts from the four major towns in the state total than 80000 of these Ahmdabad accounts 40000, Baroda 30000, Surat 17000 and Rajkot for 13000. Over 4000 children are being used to carry narcotics in the four metropolitan cities —Delhi, Mumbai, Kolkata and Chennai. Tamil Nadu is emerging as the major smuggling point of narcotics pedlars, Traffickers, senior police officials, Ministers, Bureaucrats and other VIP are alleged to carry on this illegal trade. More and more youth continue to get enslaved to the dreadful drug, and be slowly devoured by them.

During the recent past Indian society has had rapid influences from the outside world. It has grown world conscious to a great extent. The images of other cultures were received in great abundance. All these factors contributed a lot towards the explosion of expectations among the youth when expectations remain unfulfilled,

discontent and frustration grows. Today, youth faces the crisis of values in every walk of life. The credibility of elders is lost in the eyes of the youth. Drugs have always been considered an easy way to transport to be taken to euphoric heights, spiritual experiences and realm of relief from deep despair and despondency. There was not time in the history of mankind when drugs were not there. In fact their use is as old as civilization itself. With the progress of science new and different types of intoxicating drugs and drinks came to be invented. In reality drugs are akin to double edged weapon and it entirely depends upon the person who uses it whether it will entail a boon or a curse, For example the venom of cobra is deadly for human beings but the venom of cobra, in the Hopkins Institute of Mumbai, is a miraculous life saver for the tormented patients. It is only the indecent rash and mindless use of drugs that makes them harmful.

On of the remarkable features of contemporary India is not only the tremendous social change that is taking place but also a deliberate attempt by the state to change its social structure, Of course, this is not a new phenomenon. Right from the beginning of the nineteenth century enlightened Indians such as Ram Mohan Roy, Rama Krishna Paramhansa, Vidya Sagar, Swami Dayanand Saraswati have made concrete and concerted efforts to bring about desired social change. Equally laudable has been the role of socio-religious movements like Brahma-samaj, Arya samaj, Rama Krishna Mission, and Theosophical society. The tempo has gradually increased since independence to bring about vast changes in the social structures well as in the beliefs, attitudes and behaviours of the people, one of the important changes which Indian society is facing is the change in the social structure due to social mobility. The first quarter of the twentieth century

witnessed rapid and dynamic changes. In the South Indian states this phenomenon surfaced because of access to education by the lower caste groups and the 'non-Brahmin' movement. This upset the equilibrium between the advanced castes and the backward castes in the cities. Because of special educational facilities and the reservation of jobs in government, the Harijans and Gujars have come to occupy positions of prestige, wealth and power. The study of occupational mobility and the way in which elite is recruited is of occupational mobility is of great importance to understand the problems of social change in contemporary India. Student unrest involving acts of violence is not confined to any period country or racial group. It transcends national, geographical and racial boundaries. Its origin stretches back into the hoary past and the passage of time has accentuated its intensity. Plato, the Greek philosopher, lamented over the waywardness of the young men of his times in these words.

"What is happening to our young people? They disrespect their elders, they disobey their parents. They ignore the laws. They riot in the streets inflamed with wild notions. Their morals are decaying. What is to become of them ?"

These impressions could have been made by and angry social reformer of our day. Today, the appearance of new stresses and strains is apparent between the parents and children, particularly adolescents. The nature and quantum of stress varies between developed and a developing countries. For example, the parents with rural origin, especially the young ones, find the difficult to seek guidance and support from their parents and exposure of youth to the modern values has created cultural gap between the parents and the youth. Increased competition in the spheres of employment is another factor that has brought stress upon the youth.

With the advancement of science, and technology the youth has to struggle with no certainty of his employment. The young person who is already under a natural stress caused by transitional society gets disappointed, dismayed and disillusioned.

We are living in an age of explosions, explorations and paradoxes. This is the best of ages, this is the worst of ages, this is the winter of despair. We have achieved things beyond the wildest dreams of our ancestors. Science has changed our world into a place of abundance and plenty. We have been facing population explosion., knowledge explosion, computer explosion. There is hardly any aspect of life which has not been revolutionised by science. Modern medical science has prevented and cured many fatal diseases., but modern civilization has given us new diseases like stress, cancer, HIV and AIDS, and Hypertension of which our ancestors knew very little. Paradoxes abound in our world. There are those who have so much wealth and resources that they do not know what to do with it while others are living in abject poverty. The media today projects the culture of obscenity, violence and vulgar consumerism. The invasion of such images and voices in every home through television has done the maximum harm to the young minds. The visual media has like sweet poison, dulled the creative and like the devil slyly enslaved the human mind. Then there are those leaders who make grand action plans to tackle all the paradoxes but the mother of all paradoxes is "that action plans are never translated into action". The crisis of non-Implementation of good thoughts and plans is in fact a crisis of values. We think and speak of noble actions but do unrighteous deeds". Man is so much busy in amassing wealth that he has discarded, honesty, morality, social service perseverance and patience. Morality, an ornament of character is much talked about

but least observed. In our country the definition of morality is limited to sex only. Old values are sacrificed for petty gains. The education that we impart to our young minds is not sufficient to build their character. A youth's ideals and the future also. These motives and ideals are often social in character. They are influenced, moulded, and controlled by social pressure and conscience. Man today is not at peace with himself, with nature, with his fellow beings and even with his Creator. He has injected the poison of misery and strife into his own life and also into the lives of others. The springs of love have gone dry in his heart and blood seems to have frozen. He has become aggressive, brutish and sex hungry. There is a crisis of character.

Some of our leaders, Health decision makers and Bureaucrats are of the opinion that ours is a uniquely moral society, literally that Indians don't have sex. They argue that Indian society is more moral than others, that the average Indian does not have sex before or outside marriage and that this will protect India from an epidemic of HIV/AIDS. They insist "Considering our social and cultural values and traditions we feel quite confident that AIDS will not spread as far and fast as in Africa". One Union Health Secretary stated, "No where else in the world is chastity considered an important aspect of a woman's life apart from India". Another Health officer states, "That Africans were promiscuous but Indians were of a higher moral order".

One Member of Parliament from Bihar asserted in Parliament that "Aids could never dare show its face in the land of the Buddha". But these assertions and statements of leaders, Health decision makers and Bureaucrats are absolutely wrong. Will these leaders deny that the lust for money has hardened our hearts, silenced our scruples and corrupted our moral sense. They have caused mental illness which is alarming and

why diseases such as Hypertension, Diabetes, Heart ailments, Cancer, and HIV/AIDS are in the Increase. In the words of Siddharth Dube, "Travel across India with your eyes and mind open to its realities and you will see that there is sex happening everywhere, across its length and breadth from the Kutch to Kohima, from Kashmir to Kanya Kumari. Husbands and wives, unmarried lovers, teenaged boy friends and girl friends, they are all copulating sex workers whether female or male, child, adolescent are desperately hawking their sexual wares. There is homosexuality aplenty, men are having sex with men, women with women, Infants and children are being sexually abused Indians are having sex in rural fields and huts, on the pavements in towns and cities, in tenements and slums, in low income housing complexes in plush bedrooms, in corporate boardrooms, in offices, in Mantralyas and Ministries, in the bungalows inhabited by the country's, "Most powerful politicians". Until the early 1990s HIV/AIDS was feared to be a "Pandemic". Literally a global epidemic that had the potential of affect every country equally. But this has been disproved. In Industrialised nations the number new HIV Infections have fallen because of effective prevention programmes. By 1999, ninety five percent of the global total of people with HIV/AIDS were in developing countries. In terms of the disadvantages faced by the average person, India's realities are diametrically opposed to those of the developed countries. Our realities are closer to Africa and other poor Asian countries. This is why in some parts of India, HIV has multiplied as fast as anywhere in Africa."

The Government claims that adequate measures have been taken to control the epidemic. But whatever has been done is petty, and what remains to be done is vast. Why as many as 1.5 crore Indians may be infected with aids virus by 2005. Already 50 to 60 lakh Indian adults

are infected the largest number of any country. Another 6 lakh adults contract HIV, the aids virus every year, and nearly 4 lakhs now die of aids each year. Altogether 20-25 lakhs have died in the past decade. Why India today has the largest number of people infected with HIV in the world ? It is the gravest challenge for India and the world. Let the Government think seriously and act promptly in eradicating this fatal disease. Otherwise AIDS pandemic many make our story too deep for tears.

The solution of all man's physical ailments psychological maladies and mental tensions rests with Yoga which is indeed the most practical preventive and curative medicine to the demand of modern life. It is rightly said "If you wish to change the society first change yourself. A rested mind and a rested body are the best kind of health insurance. It is through Yoga that man can make friends with himself with nature and with fellow beings. The menace of aids cannot be checked by law, It cannot be prevented by formulating committees the people should be enlightened and mass awareness should be created on the dreadful consequences of this fatal disease through the press, the radio, the television, and through educational institutions. Above all the people should be made health conscious through the system of Hatha Yoga.

2

HIV/AIDS : Meaning, Symptoms and Transmission

“The history of Aids is telling us something very important about the disease in the modern world. The Tragedy of AIDS will be greater If we fail to heed the global lesson”

—Janathan Marron

Today, the problem of HIV/AIDS has become a worry to the governments a serious threat to society and a curse on humanity. As the number of HIV/ AIDS patients is increasing day by day, the problem is taking a serious shape.

Nobody had heard about AIDS (Acquired Immuno Deficiency Syndrome), fifty years ago. Nowadays the number of patients is witnessing a rapid increase. Presently Aids has become an irremediable disorder. The pace at which this disease is spreading is frightening. Almost all the countries are spending billions in an effort to control it and find a suitable cure. But they have not been able to discover any. If at all some treatment is feasible, that is very expensive. This disease is certainly

not contagious. Quite often it is the aftermath of a person's own sins. Those who are unable to have self control over their mind and body, yield to this malady.

The origin of AIDS is assumed to be central Africa. In the year 1985, the Health Department of USA organised a conference which reached to the conclusion that the source of AIDS virus is 'SAVANA MONKEY'. Thus, the researchers broke a new ground when they traced that the natives of Central Africa use these animals as their pets and eat their meat. If the monkey bites a human being the person gets infected with the AIDS virus which is in the monkey. The AIDS Ailments came in light in 1981 when a patient of pneumonia, was not responding to the treatment. It was after a lot of Investigation that the doctors could diagnose that the patients defence mechanism had failed and it gave the doctors some information about AIDS. The year 1983 was also an important year as the French Scientists claimed to have found AIDS virus in the laboratory after Exhaustive Investigations. They branded it as LAV.

The HIV (Human Immuno Deficiency Virus) and AIDS (Acquired Immune Deficiency Virus) have profoundly altered the nature of health care throughout the world. Aids results from HIV Infection. Infection with HIV produces a variety of manifestations that range from no symptoms at one end of the spectrum to aids at the other end. HIV allows the body to be susceptible to a broad array of medical conditions such as infection and tumors and to neuropsychiatric syndromes. HIV was Isolated and Identified in 1983 as a RiboNucleic Acid, (RNA) containing retrovirus that infects cells of the immune and nervous systems. Infection of lymphocytes produces impaired cell-mediated immunity and dramatically limits the body's ability to protect itself from other infectious agents and to prevent the development of specific heoplastic disorders. Infection of cells within

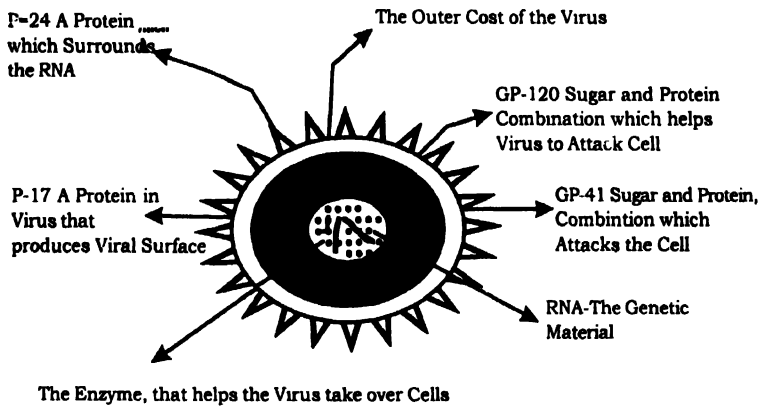


Fig. 2.1: Human Immuno Deficiency Virus

the central nervous system causes neuropsychiatric syndromes further complicated in patients with Aids by the neuropsychiatric effects of opportunistic ONS infections and neoplasms. HIV is of two types HIV/ is the causative agent for most HIV diseases. HIV is present in blood, semen cervical and vaginal secretions and to a lesser extent in saliva, tears, breast milk and the cerebrospinal fluid of those who are infected. Transmission of HIV most often occurs through sexual intercourse or through the transfer of contaminated blood from one person to another. Unprotected anal or vaginal sex are the sexual activities most likely to transmit the virus. Oral sex has also been implicated but rarely The chance of becoming infected after a single exposure to an HIV, infected person is relatively low, 0.8 percent to 3.2 percent for unprotected receptive anal intercourse, 0.5 percent to 0.15 percent with unprotected vaginal sex. 0.32 percent after puncture with an HIV contaminated needle., and 0.67% after using a contaminated needle, and 0.67% after using a contaminated needle to inject drugs. However, the

probability of transmission could be higher depending on the viral load of the contact person which tends to be higher at the beginning and end of the illness course or if there are also other factors such as sexually transmitted diseases such as syphilis or other lesions that compromise the integrity of skin as herpes, or mucosa, further increases the risk of transmission. Transmission also occurs through exposure to contaminated needles, thus accounting for the higher incidence of HIV infection among drug users. HIV is also transmitted by infusions of whole blood, plasma, and clotting factors but not from immune serum globulin or hepatitis B vaccine. Although male-to male transmission has been the most common route of sexual transmission in north America, male-to female and female-to male transmission represent an increasingly large percentage of the transmission routes and represent the majority of transmission by contaminated blood most often occurs when those abusing an intravenous substance share hypodermic needles without proper sterilization, techniques. Children can be infected through breast feeding when their mothers are infected with HIV. Health workers are theoretically at risk because of potential contact with bodily fluids from HIV infected incidence of such transmission is very low, and almost all reported cases have been traced to accidental needle punctures with contaminated hypodermic needles. No evidence has been found that HIV can be contracted through casual contact, such as by sharing a living space or a class room with a person who is infected although direct and indirect contact with an infected person's body fluids, such as blood and semen should be avoided. After infection with HIV AIDS is estimated to develop in 9 to 12 years. Once a person is infected with HIV, the virus primarily targets lymphocytes. The virus is able to inject its RNA into the infected lymphocytes.

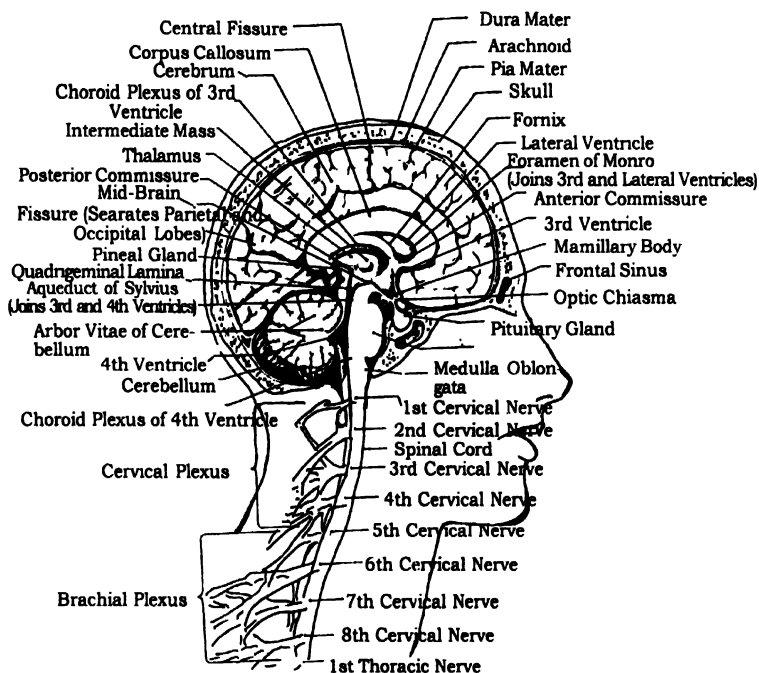
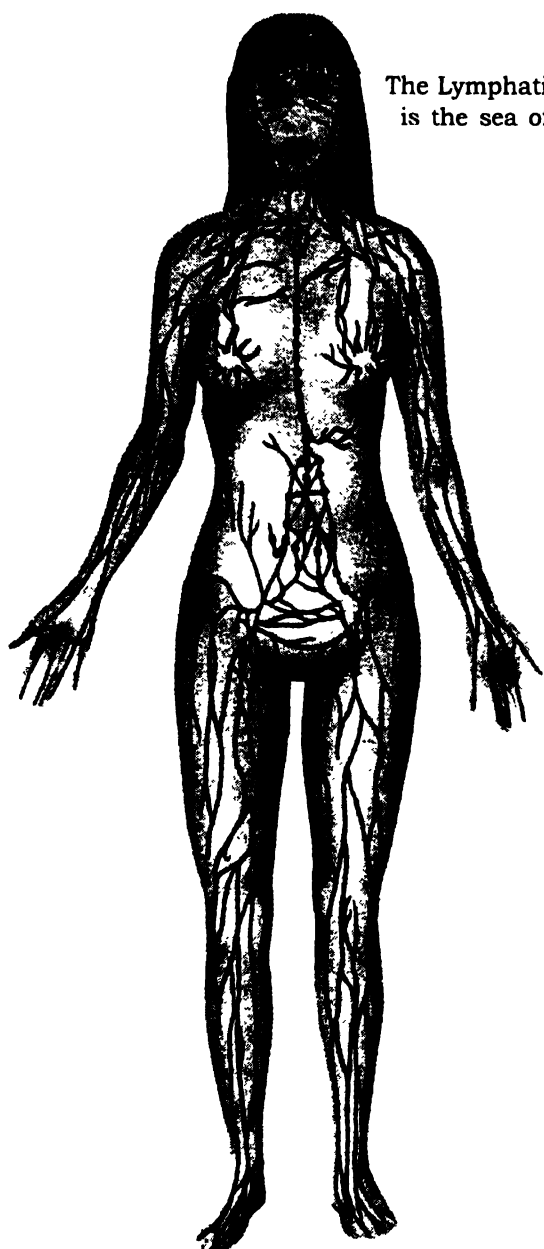


Fig. 2.2: The Brain

The AIDS virus is powerful enough to destroy the Lymphocytes security in human body. These lymphocytes are of two types, The first one are called T-Lymphocytes and second one B-Lymphocytes The HIV virus infects the lymphocytes and these in turn get perished which results in the marginalisation and eventual destruction of our immunity system. The lymphatic system is an elaborate network of lymphatic vessels that lie close to our blood vessels, sneaking through every part of the body, except the central nervous system. The lymphatics are the transport system, carrying away excess fluid, toxins dead cells and the fat absorbed by the small intestines during digestion. These vessels join up with the two large lymphatic ducts—thoracic duct and right lymphatic, duct which



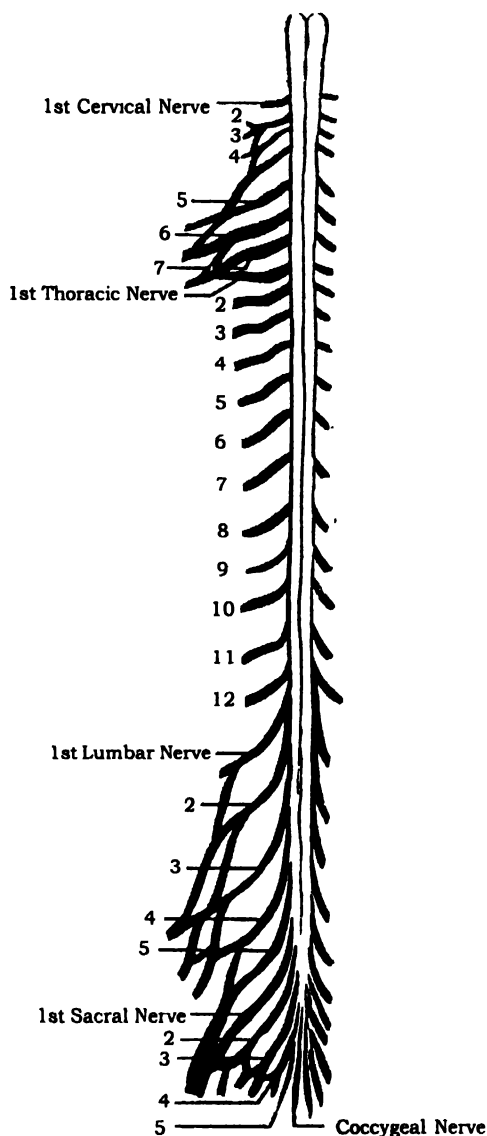
The Lymphatic System
is the sea of vitality

Fig. 2.3: The Lymphatic System

empty into the heart. Every 24 hours the lymphatic system conveys three quarter gallons of serum-like fluid to the heart—That is about 4 fluid ounces per hour. Were it not drained out, it would cause swelling of the body and would lead to other diseases. The lymphatic system also fights and kills all those nasty, bacteria, viruses and pollutants that invade our body from time to time.

More and more research is going on regarding AIDS disease, and the definition of AIDS has changed over time. The Center for Disease Control and Prevention (CDC) describes AIDS as the presence of a disease associated with a defect in cell-mediated immunity, occurring in a person with no known causes for diminished resistance to that disease other than HIV., such diseases include Kaposi Sarcoma Pneumonia and other infections. Other conditions indicative of aids are HIV wasting syndrome, Tuberculosis, and multiple and recurrent pyogenic infections in children.

About 30 percent of people infected with HIV experience a fluelike syndrome 3 to 6 weeks after becoming infected. Most never notice any symptoms immediately or shortly after their infection. When symptoms do appear, the fluelike syndrome includes fever myalgia, headaches, fatigue, gastrointestinal symptoms and sometimes a rash. The most common infection affecting those HIV infected people who have aids is *Pneumocystis carinii* Pneumonia which is characterised by a chronic nonproductive cough and dyspnea. Although HIV encephalopathy is found in a large proportion of patients cannot be ignored. These causes include CNS infections CNS neoplasms, CNS abnormalities caused by systemic disorders and endocrine—pathies and adverse CNS responses to drugs. The development of dementia is generally a poor prognostic sign, and 50 to 70 percent of patients die within 6 months. Delirium can result from the same



This drawing is of the complete spinal cord and its 31 pairs of nerves. For clarity, the vertebrae are not shown. The nerves are named according to the region of the body they are opposite

Fig. 2.4: The Spinal Nerve

causes that lead to dementia in patients infected with HIV. Patients with HIV infection may have any of the anxiety disorders but generalised anxiety disorder, posttraumatic stress, disorder and obsessive—compulsive disorder are common. Adjustment disorder with anxiety or depressed mood has been reported to occur in 5 to 20 percent of patients infected with HIV. The incidents of adjustment disorder in people infected with HIV is higher than usual in some people such as military recruits and prison inmates. A range of 4 to 40 percent of HIV infected patients have been reported to meet the diagnostic criteria for depressive disorders. Poor sleep and weight loss can also be caused by the HIV infection. Moreover HIV infected patients have a tendency to feel tempted to drug—abuse and alcohol abuse to deal with anxiety and depression. Suicidal attempts may occur in patients with HIV infection and AIDS.

Mental and behavioral disorders occur in HIV infected patients due to use of alcohol, opioids, sedatives, hypnotics, cocaine, hallucinogens and other stimulants. Abuse and dependence on substances are more common in men than in women. With the difference more marked for alcohol. Alcohol and drug—abuse is also higher among people who are unemployed, paddlers, rickshaw pullers, and university and college students, smokers are more likely to be heavy drinkers and illicit drug users than are nonsmokers. About 30 to 40 percent of people with an alcohol related disorder meet the diagnostic criteria for major depressive disorder sometimes during their life time, depression is more common in women than in men.

An extensive array of disease processes can affect the brain of a patient infected with HIV, The most important disease for mental health workers to be aware of is HIV encephalopathy which is associated with the development of a subcortical type of dementia and which

may affect symptoms such as photophobia, headache, stiff neck, motor weakness, sensory loss and changes in level of consciousness should alert a mental health worker. Major psychodynamic themes for patients infected with HIV involve self-blame, self esteem, and Issues about death. Some patients feel that they are being punished for a deviant life style.

Moreover distress before or after meal, diarrhea, vomiting, constipation, abdominal pain are some more symptoms occurring due to HIV depressive disorders. Urinary frequency nocturia, pain or burning or urination are some of the signs and symptoms in Genitourinary system.

Human body is prone to many living organisms that enter the body and cause many diseases. These can be of four types—protozoa, Fungi, Bacteria and viruses protozoa are various intestinal worms which cause intestinal disorders, Fungi cause many skin diseases and bacteria can cause diseases like pneumonia, tuberculosis and typhoid. Viruses diseases, namely small box, fever and diarrhea. Aids is caused by virus that is popularly associated with HIV— (Human Immuno Deficiency Virus). The AIDS virus of HIV attacks the immune system called the T—4 lymphocyte or the helper cell. The virus enter the cell and the cell starts the replicating the virus and when it gets exhausted and dies the viruses escape into the blood and attack other T— 4 lymphocytes. This struggle continues till the whole immune system is damaged and the patient develops AIDS. Like other sexually transmitted diseases, AIDS is also a sexually transmitted disease. AIDS can be divided into three phases.

1st phase :- A person infected with HIV virus feels normal and has no specific symptoms A blood test done after a couple of months of HIV infection shows its

presence. Then comes a latency period in which a person is called HIV infected but has AIDS. This period differs from individual to individual and is usually 3-6 years but it may go upto 8 years or more. This is a painful period. In this period a person is capable of transmitting HIV infection to other.

Phase 2 :- After 6 years most of the people infected with HIV virus develop a chronic disease. Rapidly the HIV virus permeates into the lymph nodes, spleen and lymphoid cells and damages the body defence mechanisms. The patient shows the symptom of fever enlarged nymph glands, weakness and depression. This phase is called the AIDS related complex.

Phase 3 :- This usually follows 2 years after phase 2. During this phase the patient feels seriously ill. In this critical phase other bacteria and fungi can easily attack the aids patient and threaten his life.

An HIV positive patient has the aids (Acquired Immuno Deficiency Syndrome) in his blood but has no outward symptom of AIDS. In other words, he is in the first phase of AIDS disease. During this phase only blood test can detect this disease. During third phase when the complete immunity of a patient is damaged and he suffers may diseases then he is branded as AIDS patient. Since other viruses remain separate from the genome and can be easily eliminated from the body system but AIDS virus, gets integrated into the genome of host cells and it cannot be eliminated from the body.

There was a time when HIV/AIDS was considered a poor man disease but anyone irrespective of age, sex, pelf or power can get himself or herself infected by this fatal disease. The people most prone to HIV/AIDS infection are workers or prostitutes, drug addicts, alcohol addicts Homosexuals, Bisexuals, Truck drivers, Migrant labourers, Venders, Peddlers, Rikshaw pullers,

Prisoners, Police and army personnel Hemophiliacs, patients on renal dialysis, Thalassemia patients and those people who desire for multiple sexual partners, children, born of HIV infected mothers. People receiving infected blood. In our society some people have wrong ideas about the transmission of this terrible disease, AIDS does not spread from sharing a room or eating at the same table or sharing of towels and toilet seats. Nor is it transmitted by casual contact like handshake, or hug or embrace or kissing. Coughing and sneezing AIDS is not transmitted through mosquito or bed bug bites. Food cooked by a HIV infected person does not contain the AIDS virus. AIDS virus cannot be killed by washing sex organs with soap and water. AIDS cannot be transmitted by the sweat of an HIV positive patient. Some people believe that AIDS is spreading by swimming in the pool used by AIDS infected people. It is again a wrong notion. AIDS is a sexually transmitted disease. It is more easily transmitted by homosexual sex as compared to conventional heterosexual behaviour. This dreaded disease is transmitted through blood transfusion, infected mothers giving birth to infected babies. It is also transmitted by sharing of infection needles which are not sterilized and also through infected prostitutes. A new study has shown that there are some people who are genetically such that they cannot get infected with AIDS. The number of such people in London alone could be around 10 lakh.

3

Yoga : Meaning and Relevance

Yoga has a long history. The roots of Yoga stretch back into the past. Yoga is an integral subjective science whose spiritual mental or physical import cannot be separated from each other. According to Panini, the Grammarian, the word Yoga is derived from two roots viz., Yujir and Yuja—one referring to Yoking (Yujir Yoga) and the other referring to Yoking (Yujir Samadhan) and to sense control. According to Vedanta, Yoga means supreme realisation. Yoga is the reunion of the living self with the supreme self. According to the treatises on Yoga, supreme realisation is considered as the aim of all Yogic practices. But the means of this realisation, as well as all intermediary stages are also taken to be included in the term Yoga. The main obstacle to realisation being the constant activity of the mind, Yoga is thus defined to silence the mind leaving all mental activity. The silencing of the mental activities which leads to the complete realisation of the intrinsic nature of the supreme person is called Yoga.

The Bhagvad Gita preaches reintegration through the way of action. Karma Yoga having removed all attachment and established oneself in the path of realisation, one should remain in action, keeping an

even mind, whether one's actions bear fruit or not. It is this equanimity of mind which is named Yoga. In recent times, Sri Aurobindo saw a new vision and possibility of advance in spiritual life. He realised that it should and could be possible for human race as such to rise to a new and higher status of living, a supramental in place of the mental which it now commands, but which is subject to partiality, fragmentaries and division. A supramental status of wholeness, sure of truth, is the development called and needed in the present situation of human life. This Aurobindo called 'The Integral Yoga'.

The Mastering of Sensory Impulses

The limits of the physical body can never be transgressed without knowing and thoroughly mastering the sensory impulses which govern the process of living. The most vital impulses delude us the most, thus safely protecting vital functions from dangerous interferences. That is why the vital instincts and rhythms can only be acted upon and mastered through a very expert technique. It is this technique which is called Yoga. The adept in Yoga, the Yogi, like the psychiatrist, goes straight to the root of the most powerful instincts, those which move forcibly hold us within the dominion of matter, and he is able to control his vital functions by a thorough knowledge of the particular process and emotive region through which the vital instincts hold sway over the body and the mind. Here the Yogi differs from the moralist for he holds that to neglect or ignore certain psychophysiological factors is a sure way of remaining within their grip. The network of the instincts binds the gross to the subtle body and keeps us imprisoned. The knots of this network are strong and complex and without the proper technique for undoing them, we can never escape from our physical envelop but are kept always on the path of the individual

and social instincts by which the continuity of physical life is assured. Yoga keeps aloof from emotional and sentimental impulses. It abides in 'Cold-logic' and is interested only in the technical possibility of supra-human realisation. Yoga is not attained by him who eats too much, nor by him who abstains from food, nor by him who oversleeps, nor by him who keeps awake. This Yoga which destroys pain is achieved by him who eats and behaves as is proper, whose all actions are led by reason, whose sleep and waking are regulated.

The Methods of Yoga

Basically, all physical and mental knowledge is, of necessity an experience. A conception uncorroborated by experience remains a speculation and we can never be certain of its reality. The extent of our knowledge is therefore limited by the greater or lesser extension of our perceptions. If in any way we extend the field of our perceptions, non-horizons immediately open up before our powers of knowing. In the field of sensory, perceptions, the microscope, the telescope, the instruments sensitive to all kinds of vibrations have extended according to their power and horizons of scientific knowledge.

Hindu philosophers have asserted that all knowledge is built upon experience. But they maintain that an outward perception only is only is not a real knowing, and that the only way for us to know a thing completely, outwardly, and inwardly, is to identify ourselves with it, only when we are one with it, can we know it in itself and not merely as it appears to be from an external point of view. This is the intention behind Yoga which refers to "identification; identification with divinity being realisation". By its very nature, sensory knowledge is limited to appearances. The Hindus speak of the world of appearance as the work of Maya, "the power of illusion:, because its inner reality appears before us as if hidden

by changing forms. However, deep our knowledge of a thing may be, however, near we may be to it, so long as we remain distinct from it, we cannot know it integrally.

On the eyes of a corpse an image forms like reflection in water, but there is no faculty of consciousness to seize it, no memory to take its imprint. That which really perceives is our faculty of consciousness. It seizes upon the experience the senses, which were they separated from it, would be mere mirrors. The Hindu science asserts that we can conceive of an Angel or subtle being which, free from a gross envelop and not bound by its limitations, can perceive all things. Might there not be likewise for our consciousness some way by which it could cross the boundary of its bodily prison, know the freedom of limitlessness, and see, in their fullness, all things of which, through the intermediary of the senses, it can know only limited fragments. The realisation of suprasensory perception is one of the stages of that particular training which the Hindus call Yoga. This training aims at the direct experience of all things through identification with them. All the Vedic scriptures are considered to have originated through this process and it is, therefore, only in Yoga that their key is to be found. Yoga is the guardian of Eternal Law, Yoga is the guardian of knowledge.

Without knowing the method of Yoga, no realisation is possible. However, intent in learning, detached, knower of the law. self-restrained one may be, a God even cannot without Yoga attain liberation. Yoga is thus the technique of realisation. It embraces all forms of religious experience, all of which are based on Yoga, knowingly and unknowingly. Every form of knowledge, too, is ultimately a form of Yoga. Yoga is the means as well as the object of knowledge, it is through Yoga that Yoga can be known, through Yoga that inclination towards Yoga develops. He who through Yoga becomes free from passion delights endlessly in Yoga.

The Yoga in Man

In recent times, Sri Aurobindo saw a new vision and possibility of advance in spiritual life. He realised that it should and could be possible for human race as such to rise to a new and higher status living, a supramental in place of the mental which it now commands, but which is subject to partiality, fragmentaries and division. A supramental status of wholeness, sure of truth, is the development called for and needed in the present situation of human life. This, Aurobindo called 'the Integral Yoga', the Yoga which should lift the integral nature of man, by a wide integral process of growth to a new integral consciousness. In the right view, both of life and of Yoga, all life is either consciously or subconsciously a Yoga. For we mean by this term a methodised effort towards self-perfection by the expression of the potentialities latent in the being and a union of the human individual with the universal and transcendent Existence we see partially expressed in man and in the Cosmos. But all life, when we look behind its appearances, is a vast Yoga of nature attempting to realise her perfection in an ever increasing expression of her potentialities and to unite herself with her own divine reality. In man, her thinker, she for the first time upon this earth devises self-conscious means and willed arrangements of activity by which this great purpose may be more swiftly and puissantly attained. A given system of Yoga, then can be no more than a selection or a compression, into narrower but more energetic forms of intensity, of the general methods which are already being used loosely, largely in a leisurely movement, with a profuse apparent waste of material and energy but with a more complete combination by the Great Mother in her vast upward labour. The true and full object and full object and utility of Yoga can only be accomplished when the conscious

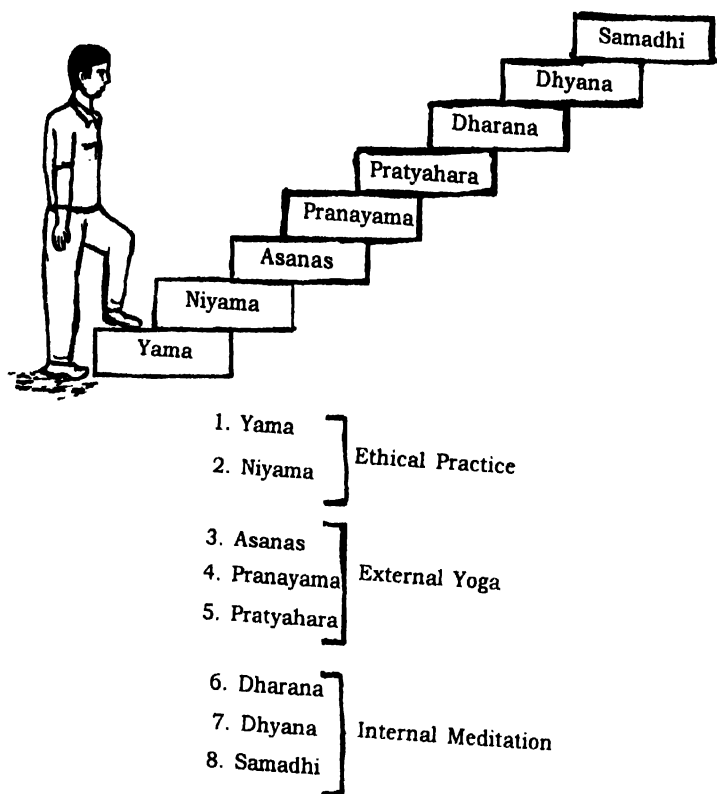


Fig. 3.1: Eight Steps of Yoga

Yoga in man becomes, like the accomplished when the conscious Yoga in man becomes, like the accomplished when the conscious Yoga in man becomes, like the subconscious Yoga in nature, outwardly cater minous path and the achievement, say in a more perfect and luminous sense "All life is Yoga".

Relevance of Yoga: *Psychological and Physiological context*

We are living in an age of explosions, explorations and paradoxes. We have conquered the unconquerable, and achieved things beyond the wildest dreams of our ancestors. Our cosmonauts have eclipsed icarus and our scientists have penetrated to the heart of the atom. Inventions have altered the very condition of life. Science has changed our world into a place of abundance and plenty. But on the one hand, the unprecedented growth of the knowledge and privileges of man have taken place, on the other, due to his ever-increasing ambitions, desires and competitions, his restiveness and maddening tensions have also increased by leaps and bounds. Materialism could not fill the chasm of spiritual and social dissatisfaction. Even today, the human being is as much destitute, suspicious, aggressive and restless as he was perhaps in the primitive age. Ever-increasing disease of insomnia, mental deformity, impulses opposing ethical values and destructive instincts are some of the common physiological and psychological problems facing man.

An important reason for this growing affliction is that the present day man, due to complexity of existing culture, can neither express nor fulfil his desires in a natural way; nor can he get rid of his ever-increasing ambitions. In the inner-self a storm of passions and outwardly a covering of civility are such two levels which are breaking the man of his own. The simple and natural life which has been lost by the human society could not be substituted by the cultural sublimation and eradication of fundamental instincts and passions. A deep void and perplexity full of struggle is the tragic tale of modern man. He is passing through various internal and external stresses due to which his mind is afflicted and full of anguish. The practical acquisition of Yoga is the attainment of tension free Chitta. Yoga technique being based on wisdom oriented restraint and

contentment, uproots the desires and produces calmness in the mind.

According to Freud, libido is the main force at the root of impulses, passions and their consequences which in a way is a desire for a spouse and in its common form is a will to possess. Fatherly or motherly love, devotion for lord, materialistic fascination, anger, envy, emulation, repulsion etc., all the feelings and impulses are expressions of this power. Hunger, thirst, lust etc., the fundamental instincts when growing in the form of desires gradually becomes hard-knots and are called passions. These passions colour all the actions of the individual in their own colour and through them the Kama is expressed as well as enhanced. Passions expect their own fulfillment and in this effort and their context, the generated pro-and against emotions also desire their expression. But due to contrary external positions and non-acceptance by ethical ego, which does not recognise them, does not allow them to be fully expressed. Thus the struggle of these two elements generates tension. These passions and emotional currents in want of their fulfillment and expression due to obstructions become part of the subconscious mind. There, these suppressed passions do not get extinct and wait in disguise for their expressions. They express in the form of 'undesired terpidation', anxiety, day dreaming, mistakes in common behaviour and forgetfulness etc., and breed many physical ailments and mental deformities to create a further long chaotic tradition.

Yoga having analysed the human behaviours, searches out the inherent catalytic element i.e., Kama element in it, to which it calls attachment. The research of Yoga transcends the research of psychology when the former accepts Avidya as a more subtle element, the root instigator of behaviour. This Avidya is the inclination of

mind to search for the self in the objects other than the self. It is that false vision which according to Patanjali and Jaina Yoga is negation of the realisation of the self which is eternal and free. According to Bauddha Yoga, this Avidya insists to accept its own existence. Yoga considers this prejudice as the originator of Kama or attachment which usurps other's material. Thus Yoga to some extent gives concurrence to Freud and to some extent it is in disagreement with him. Yoga also searches the opposite element of Avidya i.e., Viveka khyati on in other words, the power of the self which is the seer. It is considered the power of the Atman in Jaina Yoga of Purusha in Patanjali Yoga and of Chitta in Bauddha Yoga. Thus all these accept this power in one voice. This very power differentiates from motification.

In psychology, mind analysis is that catharis process which, while bringing the unconscious knots, emotions and feelings of the mind to the conscious land, eliminates the tensions created there of previously, after hypnotising the patient, through instructions, his suppressed unknown emotions were known but Freud invented the "free companionship system" in the form of mind analysis in which the patient, after having laid in the free posture Sukhasana, is allowed to speak whatever comes in his mind. He is inspired to expose not only his story but also all the images and memories occurring in his mind. In this way, the suppressed desires erupt and feelings are catharsised.

According to Yoga system also this process of catharsis can be implemented in two ways. So long as the suppressed passions are concerned, through Shavasana (Dead man's pose), the unconscious samaskaras are allowed to protrude fully. Then they are made known through the powers of the mind which could further be catharsised. The subt'le seeds of this process of catharsis are found in Prathyahara of Patanjali

Yoga, Kayanupasyana and Cittaupsayana practices of Buddhistic Yoga, and Udirama process done through Tapas and meditation in Jaina Yoga.

In Yoga, the purgation of protruding emotions can be catharsised without suppression. In the moments of their protrusion without resisting their emergence on the mental level in the light of the unprejudiced power of the seer or by enlightening through the discriminatory wisdom, they can be purgated. In this process, the Chittashakti which by becoming ideational through the emotions, could flow outwardly is made internal-oriented. In psychology when protruding emotions are controlled or obstructed by self-imposed ethical powers or the discriminatory wisdom, then the repression takes place, whereas in Yoga, the seer's spiritual discriminatory wisdom which transcends even ethical ego procreates restraints and thus the emotions are purgated.

In this purgatory process, other parts of Yoga may also prove to be important. Since the emotions have both the physical as well as mental dimensions, the Pranayama and Asana may be helpful for their catharsis to some extent. The balanced body and tranquilised respiration, attained through Asana and Pranayama can help cleansing the material aspect. The Yoga might agree with this principle of James Lang that "the knowledge of a stimulus creates few changes in the body and the feeling of those changes in emotion". Ordinarily we say that we have lost our wealth and we weep. We meet a bear, we are panicky and take to our heels. A rival insults us, we are angry and we beat him. But according to this theory, this sequence is faulty because more intellectual statement would be that because we weep we undergo anguish. We beat hence we become angry. We tremble and become afraid of. But Yoga contrary to the above alluded principle of James Lang does not explain the

emotions as merely physical changes because in its Yogic view, the complete catharsis of emotions, requires development and consciousness of Chittashakti which in its supreme nature is free from attachment and detachment. The Vivekashyati of Patanjali Yoga, Vipasyana and alertness (Sajagata) of Buddhist Yoga, and Janai Pasai practices of Jaina Yoga, throw ample light on this fact, alluded to above. It does not mean that Yoga excludes the fulfillment of genuine passions because Yoga accepts the fulfillment of biological needs and this fact is delineated in Patanjali Yoga by distinguishing between Yama and Mahavrata and by accepting them as the constituents of Yoga Likewise this fact is further cleared by the Anwratas of Jaina Yoga and life style of Buddhist adherent. Indeed. The spiritual sight which is the backbone of Indian Yoga, is the repudiation of biological values but it is the establishment of spiritual values above biological values as is clear from the word Adhyatma (adi = aton) itself. The practice of yoga is not based on suppression, it is that practice of attachment based on wisdom which further educates and purifies the internal dimension of human personality.

Body Context

Yoga does not educate only inner aspect of personality but it undertakes the education of outer dimensions also. Not only Asanas but Pranayama, Pratyahara and Dhyana play an important role in maintaining the physical health. Through Asanas, the fat body becomes flexible, internal organs are massaged, blood circulation is regulated and the nerves are balanced. Through regular practice of Asanas, the secretion of thyroid, parathyroid and idoenine glands etc. are regulated and balanced, thus most of the common diseases like asthma, diabetes, high blood pressure, mental ailments, heart ailments and abdominal disorders can be cured.

Pranayama and Health

Every part of the body is regulated by the energy supplied by mind and the arteries emerging from spinal cord. The power of the desired flow of this energy depends upon the secretion of inoarine glands and this energy is cultivated through blood made available to the glands by the nervous system. The best blood is produced by the life promoting oxygen and nutritional elements which cherish and nourish the body parts. Oxygen through inhalation and nutritional elements are received from the blood but for this, all respiratory organs, digestive system and circulatory system are required to be efficient so that continuously produced carbondioxide may be purified and pure blood may remain unaffected from the poisonous gases produced by the undigested food. In Pranayama, through purka, recaka etc., the exercise of stomach and its muscles, liver, intestines and lungs is undertaken so that they all may become stronger. Through Pranayama, the organs get attuned in such a way that a human being digests a lot more oxygen than his ordinary capacity in a day. Pranayama makes circulatory system regular and thus with the help of the pure blood circulation even the unconscious part of the mind also becomes active.

Yoga in Social Context

So far as the practical system put forth by Yoga is concerned, it impresses upon discarding violence and corruption which are the polluters of social life. Five Vratas of Jaina Yoga and Patanjali Yoga, comprising Ahimsa, Satya, Asteya, Brahmacharya, Aprigraha and Pancasila of Buddhist Yoga in which besides first four Vratas, abstinence is also included; can be fully vindicated in the social context only. Violence is international persecution whereas Ahimsa is its avoidance. Ahimsa is not the repudiation of "otherness"

but it is the sacrifice of that persecution which can be held valid in the presence of the other. Likewise truth being avoidance of deceit through gullible words is execution of altruism through valid and secret words. It also cannot vindicate itself without social, context. Asatya in the form of avoidance of others possession and Aprigraha in the form of non-amassing of the riches creates a social balance from economic point of view. Out of these the former indicates about the wrongs of consumption without producing anything and the latter declares the hoarding, exploitation and artificiality created scarcity to create imbalance in the social life as improper. Thus, these principles educate us to “produce more and accumulate less” or “maximum production and minimum profit”. This theory of Yoga rectifies the shortcomings of the modern and most dominating theories of capitalism and socialism.

Maitri, Karuna, Mrduta and Ypeksha which have been accepted with one voice by Jaina, Buddha and Patanjali Yoga can be implemented only in the social context and these feelings gradually soften the behaviour towards commonly hard, hit people, progressive individuals and the enemies.

Since all these three Yoga traditions stress upon the elimination of attachment and desires, one question in this context may arise whether attachment is connected with social relations. Indeed, neither by breaking the relations attachment is finished, nor by being attached, the relations, attachment is finished, nor by being attached, the relations are severed, social relations based on attachment cannot escape struggle and envy, rather they without these cannot stand of their aim because attachment circumbulating an individual, religion, community or nation, invariably gives birth to the concept of other religion, other community and other nation. This concept again in their own contexts creates

schism in the name of Nepotism, casteism and narrow nationalism. Though it is difficult to repudiate attachment totally even then without sacrificing to a certain limit, the desired social life is not possible. The detached attitude alone can produce harmonious temperament which can make social anomalies non-existent and through which sociability can spontaneously flower.

Philosophical and Metaphysical Context

Science is a study based on inspection and tests of various limited aspects of reality and philosophy is intellectual study rooted on the conceptual analysis of the reality and the truth. Dharma and its specific practical aspect Yoga is an effort for spiritual relationship or visualisation of that truth which is in the form of highest value or ideal. This effort is comprised for that specific realisation and behaviours in which not only cognitive aspect of personality but the affective and conative aspects are also suitably educated and through total purification of personality the spiritual values and ideals are attained.

If the philosophy is intellectual investigation, the Dharma and Yoga are particularized experience. In philosophy, the logical faculty is desired but in Dharma and Yoga devotional wisdom and purity of internal realisation are the assets of the adherent. In philosophy, cognitive element reign supreme but in Dharma and Yoga along with cognitive element affective and conative elements are also primarily needed. However, it does not mean that Dharma, Yoga and philosophy are poles apart because in Dharma and Yoga that effort of wisdom for reaching the truth is inherent which evolves into the spiritual experience and not that devotion which negates the intellect. Moreover, the Indian philosophy is not only conceptual and linguistic analysis, it is

rather than that system of thought which is formulated by logical thinking attained through intuitive experience. Thus, the philosophy and religion being cooperators are not hostile to each other. Dharmia or Yoga is the practical expression and attestation of philosophical theories, whereas philosophy tends to explain religious and spiritual experience on the one hand, and on the other puts forth the theoretical justification of the same experience. Here one point needs clarification that if the logicity of the truth realised through spiritual experience and the sense experience is accepted even then obviously, without inner sight and intuitive knowledge the sense-data oriented experience culminating into materialism is not acceptable either as philosophy or commonly cherished religion in India.

Intuitive experience may be explained coherently and logically proved by intellect but that experience which transcends cannot be produced by it. Though not as a producing power but as a controlling and consolidating power of experiences and beliefs attained from intuition, the intellect is purposeful, but so long as the supreme reality is concerned, the intellect proves to be irrelevant because the system of induction and deduction through which the intellect operates prove to be useless there. In the process of deducing of high state of truth from the higher truth through deductive methods we without attaining knowledge reach the same place from where we had started because in this process, the conclusion remains hidden in the main premise whose authenticity is yet to be proved. Likewise in the inductive method in which finding a common link in the given facts and then reaching a conclusion, we cannot go beyond the concepts and reach the truth which transcends the concepts. Hence, the inordinate need of a different source.

In this context, it is also necessary to consider the distinction between knowledge and science observed in the Indian philosophy. The first is knowing about the soul etc., with and through the help of a teacher, scripture and logic, whereas the second is the self-realisation of the material. The lines *Atman vare drus tavya srotavyo mantavyo niddhiyastivyo* (Brh. Up., 2.4.5. and 4.5.6.) and *Tan pasyate nisphalan dhyoyaman* (Mud. 3.1.8.) clearly reflect the importance of the situation, spiritual realisation and the Yogic process conducive to the creation of internal conditions comfortable to their manifestation. Leaving carvak and Mimamsa apart, most cases of Indian philosophers, the Yogic cognizance which like secular perception is not bound in the limit of space and time, has been accepted. *Samadhividsesabhyat* (Nyaya Sutra 4.2.36) means that the Samadhi produce the metaphysical knowledge; as *Mahitatant Karam upasanhrtsa madhiyasatesan* (Vaise Sinhā Surta 9.1.12.14) means that the liberated Yogis having attained Samadhi visualise even unperceivable matters. By concentrating on the celestial light, the Yogi comes to know about remote as well as immediate matters. Out of the five types of knowledge i.e., Mati, Sruti, Avadhi, Mamah prayays and Keval, the last three are direct knowledges. Thus all the philosophies alluded to above support the Yogic power which brings forth the metaphysical knowledge.

In the context of the Yogic cognizance while opposing the Buddhists, the Mimamsas is the concentration upon a particular thing. In this, no thought-fluctuation remains except the concentration upon a particular object and in a continuity of thought process for that object persists. Hence, the so-called Yogic perception which is produced in the fulfillment of the sentiments is just nothing but sheer memory. Since in obstructed concentration, the memory remains crystal

clear, the same is misconceived as the direct cognizance. That is why Yogic cognizance is pre-eminently illusion and worldly experience and not the transcendental or supreme truth. According to Buddhists, the feeling (bhavana) works on two bases: the first being the direct meaning and the second indirect. The former is the real meaning obtained through the direct proofs and sources, *e.g.*, the four noble truths but the latter is a sheer imaginative meaning. Having once fixed the real meaning with the help of logic, the same meaning is felt time and again. In this process, the veil between the word and its meaning gradually diminishes and in the last, the matter unveiled stands revealed. This is the Yogic knowledge. Here one thing is to be noted that Buddhists do not call this seedless or directly revealed knowledge as the Yogic knowledge, they rather call that knowledge as Yogic perception which is renewed knowledge through the power of material feeling.

Here we come to an important problem, Yogic Jnana has been known a direct in Nyaya, Vaisheshika, Patanjali Yoga, Jain and Buddhist philosophies. If this is direct then why so wide deep and different opinion about the Yogic knowledge. Some attain dualistic, Prakriti-Purusa oriented and some monistic Brahman oriented knowledge. In this context, we may say that through Yoga, the feelings and not Supreme Reality is visualised. Being swayed by a particular feeling when we start the Yogic process, we ultimately visualise the same feeling in the shape of matters. According to the conception of an adherent on the basis of understanding of the listening to the prevalent thoughts of his sect, the Supreme Reality of the same form is visualised by him in the meditation. The reasons for different realisations have been counted by him as follows: (1) Any one only has realized the Supreme while others merely boast. (2) Only one realizes the Supreme while other only reach

near the lowest degree of the same. (3) One has attained the highest while others have obtained the lower steps. (4) All have realized the one reality through different sources. (5) Actually not realizing the reality, all mistake imaginary realization of their objects as the true realization. As in the first case, the judgement of the adherent and in the second and the third cases, high and low degree of realization is difficult to decide; likewise the fourth category may also not be accepted, because to accept the immutable in diverse forms is also impossible. Therefore, the fifth option remains acceptable according to which the popular meaning of the Supreme realization is the self-realization.

At this juncture, a few clarifications are necessary. If we do not agree that through the Yoga, an objective knowledge or new metaphysical knowledge is attained, even then we will have to agree that in this context, Yoga is competent to intensify, concretise, sharpen and delineate the knowledge attained through other sources and it can cultivate such an experience which is thought free and fixed and which can be explained variously in consonance with different involvements and viewpoints. For example, this experience, on account of his predominantly inhibiting attitude of the Buddha, has been explained by him as peace and restriction and according to him, all the dualities end there. On the other hand, due to his positive attitude, Sankara explains it as Sat, Chit and Ananda. According to him, the consciousness there gets free from all dualities and is expressed in its own fullness.

The inordinate experience gained in Samadhi, on its being thoughtless and imitable, is invariably not secular but when efforts are made in order to explain it to solve the problems pertaining to practical life, *e.g.*, mind and body relation, matter and consciousness relation, liberation, virtue, sin etc. Then in order to try

to express the experience and putting forth the solutions of the problems due to individual feelings, likes and dislikes, and selection of the concepts and symbols, the difference of opinion comes on the surface. In this context, one is reminded of the fact that in the philosophical literature, for centuries onward from Buddha and Mahavira, the touch stone for every ism has remained the arrangement of bondage and liberation and doing and enjoying the fruits of Karma. The Buddhist believing in transitoriness put forward the logic in support of their view by saying that even if the Atman is regarded as immortal, no difference does it as well enjoying the Karma and its fruits. And the same logic was given by the Upanishadic Nityavadins to oppose Buddhism (Shankara-Bhasya 2.2.19). Jain philosophy also spoke against both of the views of eternality and transitoriness by expounding that neither eternal nor transitory Atman can undergo liberation or the armic cycle. But so long as the objective knowledge is concerned, this may be maintained that feelings are realized there.

Not only the metaphysical knowledge or self-relisation but to attain the Supreme ideal *i.e.*, liberation from transmigration of cycle also, in Indian philosophy the importance of Yoga has been accepted and its seed lies in the stabilization of mind through Yoga and freedom from delusions and Karmanas. Though according to Carvak, Atman has no spiritual existence, the death is the liberation, materialistic prosperity is the Supreme ideal which renders Yoga futile, but can the human being, having psychological, rational and ethical values, be defined only in the biological context? So long as the Mimamsa philosophy is concerned, it can be said that while not accepting the Yogic realization in the context of spiritual realization, it still accepts the importance of Yoga as secondary means for attaining the life ideals of

Svaraga etc., for the external rituals of Mimamsa had the internal Yogic links also which were taught by the traditional gurus.

Except a few philosophies alluded to above, generally all the Indian philosophers accept the liberation from transmigrational cycle as the supreme goal of life and for its attainment, the emancipation from delusive actions has been accepted as a necessary pre-condition. But the base of such liberation and emancipation is Yoga which does not refer to suppression of any kind of mental propensity but to the sublimation of mind not to be tied again with mental propensities.

4

Yoga and Sex

"I loose my respect for the man
who can make the mystery of sex
the subject of a coarse jest, yet
when you speak earnestly and
seriously, on the subject, is silent".

—H.D.Thoreau—

The instinct of sex is the most powerful instinct. Dr. Freud says that sex is the primordial energy and envelops the whole life of the individual. This instinct though it matures comparatively late in the life of the individual, is one of the most fundamental instincts of a living organism. According to psychoanalysis it becomes even when the child is an infant. The first stage of its growth is Narcissism (self-love) when the child takes pleasure or feels pain in connection with the functions of his body. The second stage is marked by his love for the parents termed Oedipus complex *i.e.* the boy develops a love for his mother and hate for his father considering the latter his rival. As Oedipus complex conflicts with the moral ideas of society, it is repressed. The third stage is that of homosexuality *i.e.* love for the individuals own

sex when young people fall in love with members of their own sex. This stage is marked by passionate friendship and a tendency in both sexes to keep away from each other. The fourth stage is that of hetro-sexuality i.e. love of the opposite sex when young people direct their interest towards member of the opposite sex. Each stage is necessary for the evolution of the child's personality. The first two stages do not present any difficult problems to tackle, for then peculiar sexuality does not appear and these stages are those of pliable infancy and preadolescence. But when the child is about to enter the adolescent stage and also when he has reached it the real difficult problems present themselves. It is irony of situation that young people are not given proper information and education about sex matters despite the fact that each and every person has had sexual difficulties and has had to undergo social taboos and predicaments. All information about sex is tabooed in the home and in the school. Consequently near about the age of 14 young people get knowledge from here and there and contract many perverse habits which create personality difficulties and maladjustments in the long run. The sex impulses gratify itself in any way open to it. Sex interest is normal and most young people grow out of such habits if adults do not make undue fuss about it.

Sex, sexuality and reproduction are all closely interwoven into the fabric of living things. All relate to the propagation of the race and the survival of the species. Yet there can be sex without sexuality and reproduction need not be sexual although for most forms of life sexual reproduction is essential both for propagation and long-term survival. The term sex is variously employed. In the broad sense it includes everything from the sex cells to sexual behaviour. Primary sex which is generally all that distinguishes

one kind of individual from another in the case of many lower animals, denotes the capacity of the reproductive gland or gonad, to produce either sperm cells or eggs or both. If only sperm cells are produced, the reproductive gland is a testis, and the primary sex of the tissue and the individual possessing it is male. If only eggs are produced the reproductive gland is an ovary and the primary sex is female. If the gland produces both sperm and eggs, either simultaneously or successively the condition is known as hermaphrodite. An individual therefore is male or female or hermaphrodite primarily according to the nature of the gland. As a rule male and female complement each other at all levels of organisation, as sex cells as individuals with either testes or ovaries and as individuals with behavioural differences associated with the complementary roles they play during the whole reproductive process. The role of the male individual is to deliver sperm cells in enormous numbers in the right place and at the right time to fertilize eggs of the female individuals of the same species.

Human sexual behaviour may be defined as any activity, solitary, between two persons or in a group—that induces sexual arousal. There are two major determinants of human sexual behaviour, the inherited sexual response patterns that have evolved as a means of ensuring reproduction and that are a part of each individual's genetic inheritance and the degree of restraint or other types of influence exerted on the individual by society in the expression of his sexuality. Human sexual behaviour may be classified according to the number and gender of the participants. There is solitary behaviour involving only one individual and there is sociosexual behaviour involving more than one person. Socio-sexual behaviour is generally divided into heterosexual behaviour (male with female) and homosexual behaviour (male with male or female with

female). If three or more individuals are involved it is possible to have heterosexual and homosexual activity simultaneously. In both solitary and sociosexual behaviour there may be activities that are sufficiently unusual to warrant the label deviant behaviour. The term deviant implies that such activity is not common in a particular society, since human societies differ in their sexual practices, what is deviant in one society may be normal in another. Self masturbation is self stimulation with the intention of causing sexual arousal and generally organ (sexual-climax). Most masturbation is done in private as an end in itself but is sometimes practiced to facilitate a socio sexual relationship masturbation generally beginning at or before puberty is extremely common in males particularly among young males, but becomes less frequent or is even abandoned when socio-sexual activity is available. Females also tend to reduce or discontinue masturbation when they develop socio-sexual relationships.

The myth persists, despite scientific proof to the contrary, that masturbation is physically harmful. Neither is there evidence that masturbation is immature behaviour. It is common among adults deprived of socio-sexual opportunities. While solitary masturbation does not provide pleasures and relief from the tension of sexual excitement. It does not have the same psychological gratification that inter action with another person provides. Thus few people prefer masturbation to socio sexual activity. The psychological significance of masturbation lies in how the individual regards it. For some it is laden with guilt, for other it is a release from tension with no emotional content and for others it is simply another source of pleasure to be enjoyed for its own sake. The fantasy not infrequently involves idealised sexual partners and activities not the

individual has not experienced and even might avoid in real life. Organism in sleep is generally infrequent. Most sexual arousal does not lead to sexual activity with another individual. Humans are constantly exposed to sexual stimuli when seeing attractive persons and are subjected to sexual themes in advertising and the mass media. Response to such visual and other stimuli is strongest in adolescence and early adult life and usually gradually declines with advancing age. One of the necessary tasks of growing up is learning to cope with one sexual arousal and to achieve some balance between suppression which can be injurious and free expression which can lead to social difficulties. There is great variation among individuals in the strength of sex drive and responsiveness so this necessary exercise of restraint is corresponding difficult or easy. By far the greatest amount of sociosexual behaviour is heterosexual behaviour between only one male and one female. Heterosexual behaviour frequently begins in childhood and while much of it may be motivated by curiosity, such as showing or examining genitalia, many children engage in sex play because it is pleasurable. The sexual impulse and responsiveness are present in varying degrees in most children and latent in the remainder. With adolescence sex play is superseded by dating which is socially encouraged and dating almost inevitably involves some physical contact resulting in sexual arousal. This contact labelled necking or petting is a part of the learning process and ultimately of courtship and the selection of marriage partner. Petting varies from hugging, kissing, and generalised caresses of the clothed body to techniques involving genital stimulation. Petting may be done for its own sake as an expression of affection and a source of pleasure, and it may occur as a preliminary to coitus. This last form of petting is known as foreplay. In a minority of cases petting leads to orgasm and may be a substitute for

coitus. Excluding foreplay petting is usually very stereotyped beginning with hugging and kissing and gradually escalating to stimulation of the breasts and genitalia. In most societies petting and its escalation are initiated by the male more often than by the females, who generally rejects or accepts the males overtures but refraining from playing more aggressive role petting in some form is near-universal human experience and is valuable not only, in male selection but as a means of learning how to interact with another person sexually, coitus the insertion of the penis into the vagina is viewed by society quite differently depending upon the marital status of the individuals. The majority of human societies permit premarital coitus, at least under certain circumstances. In more repressive societies such as modern western society, it is more likely to be tolerated, if the individuals intend marriage. Marital coitus is usually regarded as an obligation in most societies. Extramarital coitus, particularly by wives is generally condemned and if permitted is allowed only under exceptional conditions or with specified persons, societies tend to be more lenient toward males than females regarding extramarital coitus. This double standard of morality is also seen in premarital life. Postmarital coitus, (i.e. coitus by separated, divorced or widowed persons) is almost always ignored. Even societies that try to confine coitus to marriage recognize the difficulty of trying to force abstinence upon sexually experienced and usually older persons most extramarital coitus is done secretly without the knowledge of the spouse. Most husbands and wives feel very possessive of their spouses and interpret extramarital activity as an aspersion on their own sexual adequacy as indicating a loss of affection and as being a source of social disgrace. Human beings are not inherently monogamous but have a natural desire for diversity in their sexuality as in other aspects of life.

Some societies have provided a release for these desires by suspending the restraints on extramarital coitus on special occasion or with certain individuals and in modern western society a certain amount of extramarital flirtation or mild petting or kissing at parties is not considered unusual behaviour.

Androgen and estrogen play role in sex activity. Androgen seems linked in both males and females with aggressiveness and strength of sexual drive. When androgen is given to female in animal experiments she becomes more aggressive and display behaviour more typical of males — by mounting other animals. Estrogen increases her sexual responsiveness and intensifies her female behaviour. Androgen given to a male often increases his sexual behaviour but estrogen diminishes his sex drive. In human beings the picture is more complex since human sexual behaviour and response is less dependent on hormones one is less dependent on hormones once adulthood had been reached. Removing androgen from an adult male reduces his sexual capacity, but this occurs gradually and sometimes the reduction is small. Giving androgen to a normal human male generally has little or no effect since he is already producing all he can use. Giving him estrogen reduces his sex drive.

Administration of androgen to an adult human female often increases her sex drive, enlarges her clitoris and promotes the growth of facial hair. Giving estrogen to a normal woman before menopausal age generally because human females unlike other female mammals, do not have hormonally controlled periods of 'heat' (estrus).

The nervous system plays very important role in sex activity. The nervous system consists of the central nervous system and the peripheral nervous system. The

brain and spinal cord constitute the central system while the peripheral system is composed of 1. The cerebrospinal nerves that go to the spinal cord (afferent nerves) transmitting sensory stimuli and those that come from the cord (efferent nerves) transmitting impulses to activate muscles and 2. Autonomic system the primary function of which is the regulation and maintenance of the body processes necessary to life, such as heart rate breathing digestion and temperature control sexual response involves the entire nervous system. The autonomic system controls the involuntary responses the efferent cerebrospinal nerves carry the sensory messages to the brain the efferent cerebrospinal nerves carry commands from the brain to the muscles and the spinal cord serves as a great transmission cable. The brain itself is the coordinating and controlling centre interpreting what sensations are to be perceived as sexual and issuing appropriate 'Orders' to the rest of the nervous system. The parts of the brain thought to be most concerned with sexual response are the hypothalamus and the limbic system but no specialised 'Sex centre' has been located in the human brain. Animal experiments indicate that each individual has coded in its brain two sexual response patterns one for mounting (Masculine) behaviour and one for mounted (feminine) behaviour. The mounting pattern can be elicited or intensified by male sex hormone and the mounted pattern by female sex hormone. Normally one response pattern is dominant and the other latent but capable of being called into action when suitable circumstances occur. While the brain is normally in charge, there is some reflex (*i.e.* not brain controlled) sexual response. Stimulation of the genital and perineal area can cause the 'genital reflex' erection and ejaculation in the male, vaginal changes and lubrication in the female. This reflex is mediated by the lower spinal cord and the

brain need not be involved. Of course the brain can override and suppress such reflex activity — as it does when an individual decides that a sexual response is socially inappropriate. At the time of birth both male and female have all the neurophysiological equipment necessary for sexual response although the reproductive system is not at this stage functional. Sexual interests, sexual behaviour and sexual response are seen with increasing frequency in most children from infancy on. Even new born males have penile erections and babies of both sexes seem to find some pleasure in genital stimulation. Puberty may be defined as that short period of time during which the reproductive system matures and the secondary sexual characteristics appear. The ovaries and testes begin producing much larger amount of hormones pubic hair appears, female breasts develop the menstrual cycle begins in females spermatozoa and males experience voice change and sudden acceleration in growth. With puberty this is generally an intensification or the first appearance of sexual interest. Puberty marks the beginning of adolescence. Adolescence from a physical view point is that period between puberty and the attainment of ones maximum height. By the latter point which occurs around age 16 in females and 18 in males, the individual has adult anatomy and physiology. In late adolescence the majority of individuals are probably at their peak in terms of sexual capacity, the ability to respond quickly and repeatedly. During this period sex drive is at its maximum in males although it is difficult to say whether this is also true of females since female sexuality in many societies is frequently suppressed during adolescence. Following adolescence there are about three decades of adult life during which physiological changes are slow and gradual. While muscular strength increases for a time the changes may best be described as slow deterioration. This physical decline is not immediately

evident in sexual behaviour, which often increases in quantity and quality as an individual develops more social skills and higher socio-economics status and loses more of the inhibitions and uncertainties that often impede adolescent sexuality.

The age of 50 is the beginning of old age. By then most females have experienced menopausal symptoms and most males have been forced to recognize their increasing physical limitations. With menopause the female genitalia gradually begin to atrophy and the amount of vaginal secretion diminishes—this is the direct consequence of the cessation of ovarian function and can be prevented or the symptoms reversed by administering estrogen. If a female has had a good sexual adjustment prior to menopause and if she does not believe in the fallacy that it spells the end of sexual life. Menopause will have no adverse effect on her sexual and orgasmic ability. There is reason to believe that if a woman remains in good health and genital atrophy is prevented she could enjoy sexual activity regardless of age. Males in good health are also capable of continuing sexual activity although with an ever-decreasing frequency throughout old age. The male has more difficulty in achieving as erection cannot maintain erection as long and must have longer and longer rest periods between sexual acts. The amount of ejaculate becomes less but most old males are still fertile. In general the females withstands the on slaughts of age better than the male. The reduction in the frequency of marital intercourse or even its abandonment is more often than not the result of male deterioration. The early years of life are of paramount importance in the development of what ultimately becomes adult sexual orientation. There appears to be a reasonably fixed sequence of development. Before age of 5 the child develops a sense of gender identity, thinks of himself or

herself relate to other differently according to their gender. Through experience the child learns what behaviour is rewarded and what is punished and what sort of behaviour is expected of him or her.

Sexual problems can be classified as physiological, psychological and social in origin. And given problem may involve all three categories. A Physiological problem for example will produce psychological effects and these may result in some social maladjustments. Physiological problems of a specifically sexual nature are rather few. Only a small minority of people suffer from diseases of or deficient development of genitalia or that part of the neurophysiology governing sexual response. A large number of persons however, experience at some point in life sexual problems that are by products of other pathologies or injuries, vaginal infections for example, retroverted uteri prostatitis adrenal tumors, diabetes, senile changes of the vagina and cardiovascular conditions may cause disturbance of the sexual life. Psychological problems constitute by far the largest category. They are not only the product of socially unduced prohibitions maladaptive attitudes and ignorance but also of sexual myths held by society.

Premature ejaculation is a common problem, especially for young males. Sometimes this is not the consequence of any psychological problem but the natural result of excessive tension in a male who has been sexually deprived. In such case more frequent coitus solves the problem.

Erectile impotence is almost always of psychological origin in males under 40, in a older males physical causes are more often involved. Fear of being impotent frequently causes impotence and in many cases the afflicted male is simply caught up in a self-perpetuating problem that can only be solved by achieving a

successful act of coitus. In other cases the disinterest in the sexual partner, fatigue distraction because of nonsexual worries intoxication, impotency is common. Some males however are chronically impotent and require psycho therapy or behaviour therapy. Such impotency is thought to be the result of deep seated causal factors such as unconscious feelings of hostility, fear inadequacy or guilt. Ejaculatory impotence the inability to ejaculate in coitus is quite rare and is almost always of psychogenic origin. It seems associated with ideas of contamination or with memories of traumatic experiences. Occasional ejaculatory inability may be expected in older men or in any male who has exceeded his sexual capacity and should cause no concern.

Dyspareunia painful coitus, is generally physical rather than psychological. It is mentioned here only because some inexperienced females fear they cannot accommodate a penis without being painfully stretched. This is a needless fear since the vagina is not only highly elastic but enlarges with sexual arousal so that even a small female can if aroused easily receive an exceptionally large penis disparity in sexual desire constitutes the most common sexual problem. It is to some extent inescapable since differences in the strength of the sexual impulse and the ability to respond are based on neurophysiological differences. Much disparity however is the result of inhibition or of one person having been subjected to more sexual stimuli during the day than the other. The husband who has been seeing attractive females periodically during his work day and who may have had an opportunity to relax on his way back from the office is naturally more interested in coitus than his married wife who has remained at home caring for children and doing housework. Another cause of disparity is a difference in view point. Often a male will anticipate coitus as a

palliative to compensate for the trials and tribulations of life where as many females are interested in sex only if the preceding hours have been problem free and happy. Psychological fatigue, a growing disinterest in sexual behaviour with a particular partner sometimes constitutes problem. Human beings are subject to monotony and coitus may become routine or even a chore.

Lack of female orgasm is a very frequent problem. One should differentiate between females who become sexually aroused but do not reach orgasm and those who do not become aroused. Only the latter merit the label frigid. It is common for females not to achieve orgasm during the first weeks or months of coital activity. It is almost as though many females must learn how to have orgasm for after having had one they respond with increasing frequency. In some cases the female initially has no idea how to copulate effectively and simply lies passive expecting the male to bring her to orgasm. Other females resist orgasm because the feeling of being swept away and losing control is frightening. In most cases anorgasm is simply the result of years of inhibition having been trained since childhood to avoid yielding to the sexual impulse.

Sexual problems are often perpetuated by the inability of the partners to communicate freely their feelings to one another. There is a curious and unfortunate reticence about informing one's partner as to what does or does not contribute to one's pleasure. The partner must function on a trial and error basis, even on the alert for signs indicating the efficacy of his or her efforts. This muteness is even more pronounced when it comes to an individual making suggestions to the partner.

Yoga-sex relationship may appear very queer and strange to a common man. But the knowledge of Yogic

practice is the source of real bliss. The practice of Yoga techniques adds "Life to one's years". It carries numerous benefits. Here we will limit our discussion to Yogic benefits relating to sex. These benefits of Yogic practice are not only for a particular person but also for those who have no faith in Yoga. Hatha Yoga is a combination of science, Art, and philosophy having universal appeal. The practice of Yoga enables a person to distinguish between good and bad sex. Mind is the most important sexual organ and fear is the worst enemy of a perfectly blissful sexual act. For the purpose of sex Yoga is an omnipotent conditions. It is a general belief that all the Yogic ideals namely Yama, Niyama, Asanas, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi are basically antagonistic by popular thinking that Yoga and sex can co-exist but not co-ordinate but normal humans can derive everlasting and real benefits relating to sex after pursuing the science of Yoga in daily life. Yoga helps one to rule over sex and not to be ruled by sex. It provides the power to master ones emotion which is impossible with drugs and tranquillizers. Yoga also streamlines sex behaviourally, emotionally and spiritually. Yoga enables mind to use pleasant thought and the insatiable desire for excessive sex is easily channelised with Yoga the self control is not frustrating but rewarding indolence and sloth are the fundamental foes of sexual efficiency which result in mental indiscipline which can be overcome only by practising Yoga. What is fantastic about Yoga is that it transforms stress into a challenge. In yoga the exalted love in sex stands for oneness, truth and spirituality. Most sexual crimes are perpetrated by people who are unable to find a normal outlet for their sex urge and are frustrated. According to Yoga, tolerance and forgiveness enrich the emotional life and promote appreciation of truth and beauty.

“Marriage makes enormous demands on the partners who often break down in the absence of physical, mental and temperamental adjustments. Yoga softens the background neurosis. Asanas and important aspect of yoga, do simultaneously affect both the body and the mind for the better”. Sexual exercise when performed under yogic principles lead to longevity, alertness, radiant health, and tranquility. Mind does show her three forces. Sometimes Rajas running wild. Sometimes Tamas with dark despair. Happiness, sorrow realisation, hallucination, sexual perversion bondage depend on ones mind. Yoga purifies the mind and creates peace, harmony and tranquility. Mind is slippery, oscillating easy to all into the net to sexual temptations and allurements. If left uncontrolled it becomes a source of evil thoughts, morbid feelings, malicious intentions, sinister motives, sensual desires and ignoble actions. Yoga with the help of Pranayama (science of breathing) and Meditation can create positive thinking a source of delight and inspiration to the practitioner.

Some people in the west take drugs to enhance sexual strength and take drugs Prolong orgasms. They call these drugs “Ecstasy”, “Heaven”, “Sublime”. But real “Ecstasy” or “Heaven” is not in outside world. It flow, in the very juices of one life. Man has the source of the infinite ecstasy within him. Every outer drink will make one unconscious, addicted and every time one will need more and more of it, because his body will become immune to it. Drug can give certain experience but to have an experience is not the basic thing, to grow through it is the basic thing. One can have experience through the drugs but one cannot grow. The experience through drugs is as most aborative. The real thing is growth and integration. Any stimulation from the outside is in the long run very dangerous LSD or any other drug changes the chemistry of our mind but it does not

change it. Huxley says "All the existing drugs are treacherous and harmful. The heaven into which they usher their victims soon turned into a hell of sickness and moral degradation. They kill first the soul, then in a few years the body. For the drug taker the moment of spiritual awareness (if it come at all) gives place very soon to subhuman stupor, and hallucination, followed by dismal hangovers and in the fatal impairment of bodily health and mental power".

Sexual problems which are of psychological or social nature can be checked, cured, and prevented by yogic practices. Premature ejaculation and erectile impotence and ejaculatory impotence can be resolved by Shirshasana, Sarvangasana and Paschimottanasana. Erectile impotence is almost always of psychological origin. Some males however are chronically impotent and require yoga therapy. Such impotency is thought to be the result of deep seated causal factors such as unconscious feelings of hostility, fear, worries guilt, intoxication, fatigue. These causes can be eliminated by Pranayama and Meditation, the most important limbs of yoga. Lack of female orgasm anorgasm is a very common sexual problem. One should differentiate between females who become sexually aroused but do not be aroused. Anorgasm is treated in yoga therapy by removing inhibitions doing Asanas namely Matsyasana, Garudasana, Ushtrasana and Sarvangasana. Pranayama and Meditation have also proved very effective in treating anorgasm. Sexual problems can be ameliorated only if the individuals concerned adopt the yogic practices particularly Asanas, Pranayama and Meditation.

All sexual production no matter how large or small the organisms may be is a performance of single cells, only at the level of single cells can the essential genetic recombinations be accomplished. So in every generation

new life begins with the egg, which is a single cell. Egg and sperm unite at fertilization. No physical exercise except Yogasanas can make nerves cells very healthy. The Asanas namely Padamasana, Vajrasana, Suptvajrasana. Ardha Matsyender Asana, Gorakshasasana and Janushirasana can make one sexually strong intellectually high and morally sound. Moreover the production of sex hormones is controlled by hormones of the pituitary gland. Pituitary hormones stimulate ovarian or testicular tissue which secretes the sex hormones. The sex hormones not only maintain the growth of the sexual tissues generally but inhibit the secretion pituitary, hormones so that the process, does not get out of hand. The pituitary activity is influenced by external conditions. No other physical exercise except Yogasanas can tone up all the glands including pituitary gland. Asanas particularly Chakrasana, Salabhasana, sarvangasana, shirshasana, Halasana, and Matsyasana can tone up pituitary gland and adrenal gland. One's genetic make up determines ones hormonal status and the sensitivity of ones body to these hormones. While a disorder or any part of endocrine system can adversely affect sexual life. The hormones most directly influencing sexuality are the androgens (male sex hormones) produced chiefly in the testicles and the estrogens (female sex hormones) produced chiefly in the ovaries. In yoga, Pranayama exercises particularly Surya Bhedana, Sukh Purvak, Ujjayi, Bhastrika and Sheetalī can tone up the entire endocrine system and make sexual life healthy and harmonious. The parts of the brain thought to be most concerned with sexual response are the hypothalamus and the limbic system. But there is some reflex (*i.e.* not brain controlled) sexual response. Stimulation of the genital and perineal area can cause the genital reflex, erection and ejaculation in the male vaginal changes and lubrication in the female. This reflex is mediated by the lower spinal cord. With the

advancement in age the spinal cord becomes stiff and weak. But Yogasanas particularly Bhujangasana Veerastambasanas, Shirshasana, Surya Namaskar, Ushtrasana, Salabasana, Chakrasana and Sarvangasana, will make the spinal cord strong and flexible. The process of ageing is natural. Yoga may not stop this process but yoga will definitely retard the process, if has been said that, "Yoga cannot avoid growing old, but yoga can avoid growing cold".

The mind becomes impure when the male and female energies in us are not balanced. Meditation and Pranayama help us balance them. Dominance of masculine energy results in more aggressiveness. It needs to be balanced by passiveness that is feminine energy. In Pranayama balance is achieved through moon and sun energies Chandra- Surya Bedha. In Yogasanas balancing is achieved through physical postures. In Mantra Yoga the balancing is achieved through certain mantras focussed on specific Chakras and invoking energy centres. The ego is also the effect of an imbalanced energy. The ego creates more pain than joy. The nature of our thoughts is largely compulsive and sexy. We are conscious being but we live like machines addictive thoughts take away from the mind of the individual as a conscious being. By Mantra Yoga compulsive thoughts are transformed by chanting Mantras with understanding, the mind becomes calm and our perception will be wise with internal universe. If we look at life in silence, the world becomes a divine place. Just by the law of observation one can learn so much. The lotus for instance was considered to be one of the Gurus of sage Dattatreya. The lotus grows from muddy water yet it gives out fragrance. Despite the many bad things happening around us daily we should strike to be as fragrant as the lotus. We are living in an age of stress and tension. The Evaluation and Rehabilitation

Branch of Yoga Mission International evaluated 30 male drug addicts and interviewed 50 male alcoholics among university and college students and some non students coming from rich families. It was observed that some major factors had an impact upon the addicts. The factors were parental absence, hypocritical morality, parent—child communication gap, parental divorce, mother—father conflict, family break-up marital conflicts and use of psychological crutches to cope with stress. Many fathers have psychological problems and are irresponsible in their marital relationship. Mothers are either very unhappy in a marriage they had entered into reluctantly or mothers are very beautiful and were compelled by economic factors to marry ugly persons and in a few cases the cause of mothers unhappiness was attributed to father's, impotency, suspicious and credulous nature. Since many of these traditional families did not end in divorce, their tale of tears, sorrows, and hardships continued till the end of their life. Among the affluent families there is lot of infidelity. The research shows that between 60 and 80% of men and only a smaller portion of women have had love affairs with married—thrilling sex, overpowering emotions. The study also found that one out of every 7 married respondents has had or is having an extra-marital affairs.

With worrying thoughts the mind loses its clarity to see what is and starts seeing what should be. With worrying thoughts one exists in the world of the mind and not beyond the mind where the soul exists. In Mantra Yoga when a powerful mantra is chanted the higher centres in us open up. The higher centres are constantly communicating. But since the lower centres are impure the mind is unable to reserve the fine vibrations of the divine Mantra Yoga facilitates the awakening of our hidden energies. No growth can happen unless there is a commitment to grow. The commitment to excel should

be the way of life creativity is not doing something new and different, it is about bringing a new energy of love and joy in whatever one does. We should contact the universe within us to the one outside us. Yoga gives a mystic dimension to connect. Yoga is like a ladder we must climb it with love, purity and faith.

Sexual desire whether conscious or subconscious is a distracting power that must be controlled. When suppressed it increases power of concentration and by sublimation it increases the power of the mind. There are numerous ways of suppressing sexual energy, hardwork during the day. Meditation, Asanas and Prayer. Sublimation involves special technique where Asanas Pranayama and concentration, combined in one powerful effect.

The modification of the sex instinct is very necessary and this can be achieved through social and artistic activities and yogic practices. Nowadays erotic literature on sex, stories, novels and other forms of literature dealing with sex matters are usually filthy and they arouse immature interest in sexuality and hunger for it. If young men and women are scolded on sex matters without being given wholesome direction they develop psychological difficulties such as worries, anxieties, and other phobias leading to disorders of neurotic and psychotic types. It is generally proposed that young men and women should have an abundance of physical activity, deep and wide interest, healthy hobbies, well selected reading matter opportunities for normal social life and health consciousness, in order not to run any risk of being driven into morbid curiosity and secret sex habits such as masturbation, homosexuality, heterosexuality and the like. Yoga offers wholesome direction and a complete system of sublimation of sex instinct.

Wet Dreams

When a male attains puberty, perhaps it starts with a wet dream or nocturnal emission. This becomes his first experience and he becomes flabbergast about it. He may not understand as what it is. It is a biological process and is natural to every body. By wet dreams he feels that his vitality is being wasted and feels psychologically depressed. However one should not become perturbed because it is only an overflow of fluid without sperms from the glands other than the spermical gland. Sperms are wasted only in sexual intercourse, but not otherwise only in rare cases two to five percent of sperms may be present in wet dreams. In wet dream mostly prostrate and cowper glands will be active vesicles and several other glands situated in the urithra. When the secretions are secreted to the brim, the excess fluid flows out into a common tube called urithra thpemis during wet dream. We call it wet dream because the fluid emission is followed generally by sex dreams. Even in sex dreams he feels a sort of euphorea even though it is an ephemera for him.

The frequency of wet dreams depend upon one's constitutions, sex thoughts, spicy food, company of women etc. Some people get wet dreams occasionally while others get almost regularly all the days in a week. An advocate aged about 33 years in Mumbai had regularly five wet dreams a weak for about two decades, but never the less he was not perturbed. His health was normal and carried on his profession well undisturbed.

The wet dreams occur followed by contacts with the opposite sex by means of touch, sex talk, embrace or sexual intercourse etc. in sleep. They might take place suddenly or after a lengthy sexual dreams. Lengthy dreams indicate thick semen and a good nervous strength. People with strong semen will produce healthy

children if they are married. Reverse is the case with people who have weak semen. In weak people emission takes place in sleep without dreams. However frequent wet dreams are unhealthy sign. Frequent wet dreams lead to memory loss, weakness of the nerves with symptoms of shaking of hands, perspiration sweating on the palms and soles, pain in the wrist, pull in the legs and thighs and such other weaknesses.

Wet dreams also occurs in women, especially who are unmarried, but it may be rare in them when compared to men. Among the married persons, the male gets dreams in case of long absence of sex or if his wife is away from house for a long time or if cohabitation is stopped due to pregnancy of his wife. Even so-called swamijis and Brahmacharis also get nocturnal emissions due to sex dreams. They appear to have conquered the body and mind but actually sex thoughts are hidden in their subconscious mind. A true swami is one who has control over the body and the mind and sex control.

Wet dreams occur during day sleep also. For this reason day time sleeping should be avoided. In many of the cases wet dreams occur in the early morning hours, hence one should get up early in the morning to avoid wet dreams. The ejaculation semen contains mostly three elements namely calcium, iron and phosphorus. Foods and vegetables containing these elements, if consumed well, one will have a good amount of semen produced in the body. They can become strong sexually and can lead a happy married life. A good physical exercise or Yoga practice or Surya Namaskar will also lead to increase of semen and part of the semen produced will sublimate into the body. The body then becomes more strong and healthy.

Food and Wet Dreams

The type of food is also responsible for frequent occurrences of wet dreams. The food articles such as roasted, fried, stale, recooked, rotten and decomposed and those articles which have no life are bad to health and stimulants like tea, coffee, tobacco and alcohol etc. (are very dangerous and promotes semen to flow down) carrying wet dreams. Other food articles such as a stringent, sour and bitter must be avoided as far as possible.

The food that is nutritious, fresh and sweet and has life are recommended for preservation of semen. At the same time our habits are (such as heavy and belliful meals, untimely meals, heavy and oily foods especially in the nights pushes the semen down and causes wet dreams. Always night meals must be very light.

Overstraining the body and the mind will lead to nervous weakness. Indigestion, gastric problems, constipation will also help to cause wet dreams. Sleeping immediately after meals, sleeping in the back, sleeping nakedly, reading dirty sex novels are considered bad habits. Hence one should avoid all such habits which promote semen to go down. Cultivation of good habits, sensible eating, reading spiritual books, doing social work, regular Yoga and Meditation will help to maintain the body hale and healthy.

One should give up smoking, consumption of alcohol and drugs. One should not cast evil eye on women.

Yogic Techniques

The following are some of the techniques to be practised to overcome wet dreams. Swami Yoganand has recommended the following Meditation for control of wet dreams.

Techniques

Sit in Padmasana or Siddhasana or any other comfortable Asana keeping spine erect and perpendicular. Close your eyes and meditate on the tip of the spinal column (at the base level) that is on Mooladhara Chakra. Now feel that semen is going upwards. Sahasrara Chakra which is in the middle of the skull. Do this every day at bed time for 10 to 15 minutes. This is a good practice to maintain Brahmacharya. In a month or two one will understand the benefits of the Meditation for himself. The semen will travel upward and will be absorbed by the body. In such a person his skin on the body and on face will shine and his eyes will sparkle like eagle eyes. Siddhasana posture during Meditation is highly recommended for controlling of wet dreams and for promotion of upward movement of semen. It also helps to control sex thoughts and promotes spiritualism.

Technique No. 2 (Vajroli Mudra)

This is advocated by Bihar School of Yoga. Sit on any comfortable meditative Asana. Close your eyes. Relax the body and mind by watching the natural breath until it has become slow and dry.

Become aware of the genital region and focus on the urinary opening which is at the base of the penis near the pubic bone in men and just below the clitoris in women.

Inhale slowly and gradually contract the urinary opening as if to prevent the flow of urine. At the same time, gently pull up the lower abdomen as if attempting to pull up genitals into the pelvic. Retain the breath for as long as comfortable and retain the contraction. Then inhale slightly and then exhale and simultaneously release the contraction of the abdomen and urinary system. This is one round. Practice ten rounds. Add five

rounds daily until you reach a maximum of fifty each day. Practice this technique after Asanas and Pranayama but before Meditation.

Burning Sensation During Wet Dream

Not all but some people occasionally may suffer a sort of burning sensation during dreams. This happens when the semen is ejaculated by force or during that time when the rapid flow is obstructed due to tight dress or due to a particular sleeping position. This causes severe burning of the soft membrane of the urethral canal. The pain will be like pearcing of needles with burning sensation and lasts for a long time.

In that circumstances one should go into bathroom and take a tumbler full of cold water and immerse the penis, the full length and keep it so for some time. The stuck up semen in the route of the penis canal gradually drips out into the tumbler. It should be repeated for at least two to three times and then one should stand up and lift one leg up and press one thigh against the other and the roof of the thigh. While doing this the body should be bent down a little from the waist. It should be repeated several times alternatively. This pressurises the penis and it pushes out the obstructed semen and relieves pain forthwith.

5

Tantra Yoga and Sex

"The same consciousness is in man and woman. Give up distinction in consciousness there cannot be two. Shiva is Shakti. They again are indistinguishable"

—**Swami Muktananda**—

In the philosophy of yoga, Tantra Yoga is often misinterpreted and misused. It is usually attributed to sexual practices which gained notoriety for Tantrism. The roots of Tantra Yoga stretch back into the past. From the excavations in the Indus valley it is proved that Tantra Yoga was known to the residents of this valley more than 3000 years before the birth of Christ. Vedas are *mul* Shastras (original scriptures) and all other Shastras are based on them. Tantra is science of ecstasy. Tantra and yoga have much in common. Both are complete psycho-physical systems aimed at the perfection of the human being. Both use a number of disciplines which provide a choice of methods to attain the objective., some choose the path of worship or Bhakti Yoga, some choose the path of action of Karma Yoga, many Hatha Yoga, or path of knowledge Gyan Yoga and so on. Similarly Tantra provides multiple, interrelated paths. The path of sound

visualisation and maithun or the sexual intercourse. Tantric in sexual union tries to heighten and prolong the special rapport that exists between male and female when they are making love. The object of the maithun or the sex act in Tantra is not the ecstatic pleasure of intercourse but the 'Oneness' that the man and woman experience when they are in such a sexual 'High'. The ecstasy is the means and oneness is the end. This state of Tantric experience is a mind blowing experience. Time ceases to be colours and sounds becoming intensely vivid. For that timeless moment when you are held in the intoxication of a Tantric experience, your consciousness flares to include everything around you. For that burning instant the whole world stops and you alone are infinite and timeless. Tantrics believe that at the ego—dissolving moment before orgasm the minds of the partners make a fleeting contact with the sub-conscious mind. Tantra seeks to use the rapture of sex to blast through the ego protective barriers of our inhibitions and tap the incredible powers of sub conscious mind. Tantra seeks illumination through the ecstasy of the senses. Tantra realises that pleasure can be a virtue if it can be disciplined by training and self-control. Far from renouncing pleasure the Tantric seeks to experience the most intense pleasure that can be tolerated and to maintain that ecstasy for as long as it can be held.

Tantric uses the driving force of sex to get at the sub-conscious mind because at the peak of sexual pierced and contact is made with the uninhibited sub-conscious. Tantra seeks to prolong this contact in a controlled and disciplined way so that the door to the sub-conscious is opened and thus the knowledge of duality of nature becomes part of our daily experience. This awareness of the oneness of all creation is an ecstatic experience, some, yet unexplained way, open the door to the sub

conscious mind. Though it is normally for a very limited time. This should be clear from the conduct of lovers who are deeply sexually, involved with each other., they say and do things which would horrify or disgust them in any other situation. Finally it is only in the highest sexual ecstasy that the lovers identity barriers dissolve, and they act as primal male and female and eventually, merge in a mindless sexual identities. At that peak of orgasms or the instant before it, your interests and these of your partner rapt in the ecstasy of sex. Tantra believes that in their fleeting orgasmic oneness of the universe., a bliss, which Zen calls 'Satori' and Christianity calls the beautiful vision. The importance of the female consort in Tantric practices stems from the fact that every woman is Shakti. She embodies the secret, fundamental forces that control the universe. The Tantric feels the ineffable bliss of divine union by correctly joining himself to this line of force pouring forth from the supreme Absolute. Spiritual liberation can come only through experience, states of consciousness cannot be controlled and transcended until and unless they are lived rapturously, freely and in all fullness of their power.

The belief that in ritual sexual union men can elevate and enoble their life, recurs in all the religion of the world in some form or the other though prevailing only in the inner circle at the highest level. Devotes of Ishtar in Babylonia, Isis in Egypt, Shing Moo in China, Aphrodite and The Gnostic Sophia in Greece, Diana in Rome, Kali or Shakti in India all resemble one another.

Sexual union with the right partner at the right time in the right state of mind—can open the way to a new dimension in life. After all woman or the Divine Shakti gave birth to all in the universe. We all come into being through the union of the same generative forces—only on a cosmic scale.

If we know how to prolong the ecstasy which crowns the sexual union we can discover a better vision of ourselves and the universe. Through whole hearted study and application of the sexual principles of Tantra Yoga, we can achieve sexual potency which will enable us to extend the ecstasy crowns sexual union for an hour or more, rather than the brief second we now know. This is for more than a prolongation. It is the expression of the natural capacity of man and because of this the conclusion of the sexual union does not result in exhaustion or depletion but in complete relaxation and revitalisation. This is the goal of Tantra Yoga.

Everything in the world is divided into positive and negative, male and female, passive and kinetic, electric and magnetic. The feminine or negative side is passive but magnetic it attracts to itself, absorbs and stores up potential energy, when it is brought into contact with the positive or masculine side of nature a reaction occurs and power is generated. The same is true when a predominantly masculine personality is brought into the magnetic field of a predominantly feminine one. Thus when a union between male electrical and female magnetic occurs, the couple involved provide a conduct for cosmic force, which flow through them with a terrible force. This power can be seen radiating from them. Differences in bio-electrical potential exists in male and female bodies and that an exchange between these two types of electricity takes place in proper sex union. The tantric discipline is not to shrink from the senses but to conquer them through experience. The gross body is given careful attention by way of good diet, Yogic exercises and breathing techniques not as an end in itself but because it is an instrument of the soul, to be used for attaining salvation, bestow youth and vitality on the aspirant because of its being related to seven major centres of psychic force in man's subtle body

known as Chakras. The aim of the Tantric is to direct the centripetal Shakti force Kundalini (that is normally static at the base of the spine at Mooladhar Chakra) upward to the higher centres so as to reach the Sahasrar Chakra to become one with the centrifugal Shiva energy. Sexual force serves two purposes the procreation and the creation. In procreation it satisfies the animal instinct to preserve its species. The same force can be disciplined to serve a purely creative function. This creative power is known as Kundalini. When the Kundalini can be made to rise up the body it will activate successive centres of creativity (psychic or energy centres) called Chakras. Finally when it infuses and rises through the last Chakra at the top of the head. The knowledge of the unity of all creation will pour into the mind and there will be no distinction between the created who seeks and the reality who exists. When the Kundalini illumines the last Chakra you will see your self your soul, for what it is, an indistinguishable part of the great soul that sustains and is creation.

Tantra descipline is a method used to unite the individual self (Atman) with the Absolute Infinite (Brahman) in the cosmic conscious state known as Samadhi. Here there is only pure existence Shiva-Shakti where the formed and the formless are united and merged. It is the state of Sat-Chit-Anand, that is pure Existence—consciousness—perfect bliss.

The ultimate aim of Tantra is to attain the state of perfect bliss. Our ordinary pleasure experiences are of extremely limited nature—they afford but fleeting glimpses of supreme joy—and this ephemeral quality will always send us back to gross plane, preventing the advance towards self-realisation. Tantric Sadhna is a synthesis of Bhoga and Yoga, enjoyment and liberation. There is no place for renunciation or denial in Tantra. Instead we must involve ourselves in all the life

processes which surround us. The spiritual is not something that descends from above rather it is an illumination that is to be discovered within. "Kaulavali Nirnay" describes Kula as Shakti and Akula as Shiva, their unity (sanrasya) is Kula (Kaul) and the process by which these relationship is realised is Kaula Marga. Kaul the ultimate aim of the adept is defined as the state in which the mind and the sight are united, the sense organs loose their individuality, Shakti becomes identical with Jiva and the sight merges into the object to be visualised.

Shiva is also thought of as Mahalinga, the energy of which is conceived under the name of Bindu and it possesses Kamkala, the power of attraction and the source of eternal life. Spiritual deliverance is obtained through devotion to the Linga, the exact knowledge of the Lord that pervades all and is the source of the universe.

Great emphasis is laid to the practical application of Meditational techniques and the various "Siddhis" (Occult—powers), in the process of Yoga such as removal of diseases, power to associate with Yogins, success in the pursuit of four ends of life, eternal youth and long life obtained by drinking the ambrosia that trickles from the top most lotus is situated in the Brahmarandhra. The aim of Kaula adept and the Yogi are similar and only the means adopted for the realisation of that end are different. To the Kaula the path is one of controlled enjoyment of senses, for he realises that in the ultimate analysis Yoga and Bhoga are one and the same thing. Various stages are postulated in the upward course of the spirit, the ultimate unity being achieved only in the last stage. The ritual practices of the cult, therefore, enjoyed the partaking of Panchmakars, flowers, perfumes, flesh and sweet meats were commonly used in the ceremonial. The participation of Vaisya—

Kumarikas (Virgin courtesan) is also enjoined and the secret and symbolic nature of the sites is constantly reiterated.

Akulgama Tantra clearly states that those who are addicted to external Mada, "Narmamla", Maithuna, Mansa etc. certainly go to hell. According to Tantric philosophy every woman is worthy of worship. She is goddess. She is worshipped in all aspects of her total personality. The aspirants worship and praise all parts of her body including private parts and praise all her attitudes. Her beauty and her desirability as female are an essential parts of her being and our way to pay homage to her is to experience a fervent passion or love for her but this passion or love is free from animal passion. It is pure. The aspirant's whole being is permeated with an urge for merging into the deity and so called sex urge is part of this total urge. But actual sexual intercourse or Maithun is also involved in case of Veer-Sadhaks.

Tantra philosophy is a form of yoga—the yoga of Bhoga, all this is merely indulgence, not sexual indulgence. It is a part of total Sadhana and one must be very careful in forming opinion.

For a perfect Tantric Yogi engaged in the yoga of Bhoga, there is no emission, no detunescence. As a matter of fact in the body of the perfect yogi there is no semen as such, since having passed through this stage, the liquid has become nectar giving stress in that part of one's brain where the Sadashiva resides. Any way there is no question of ejaculation, any coming off. Again the final stage of the sexual act, is reached, progressively through other parts of the act of worship measured food, measured drink and measured movement and preliminaries, whether of song, dance or touching or embracing the Mudra—all these have gone before.

Furthermore, the man and woman are consecrated, are converted into god and goddess or made the savants of these, before they may engage in the ritual. This is no idle love making and no idle love maker should attempt it.

Tantra is based upon the premise that an exchange of psychic energy is constantly going on between person to person, planet to planet. The universal power inherent in the union of opposites but complementary poles is utilised in Tantric Sadhna. These opposites, but are two aspects of the same single reality or the absolute infinite. The male aspect, known as Purush is pure, unmanifested consciousness. The female aspect known as Prakriti and incarnated in Shakti (that is every woman) is the supreme primal energy, the power of becoming. Neither of the two can exist without the other, without his Shakti or consort, Shiva (the supreme self) would be Shava a corpse. And Shakti apart from the cosmic consciousness would be uncontrolled blind force. From their union (the play of Kali upon the breast of Shiva) is born everything in the universe. To his end, Tantric disciplines seek not only to awaken subtle centre (Chakras) but to purify and to open psychic channels allowing a free influx of energy from higher plans. The meaning of Tantric Sadhana is two fold. It consists of awakening and unfolding forces that lie dormant within the body and of obtaining power from the supreme Shakti who is manifesting through all action in the universe. Tantric regard woman as a divine mother. She embodies in microcosm all that the mother power comprehends who becomes an instrument for realisation of the spirit. Tantric finds in woman means of liberation from the fetters of worldly bondage. He seeks deliverance through love and through actual experience. The primordial person split itself—and we are all heirs to that act. Each of us, therefore contains the

characteristics of both sexes. The degree of imbalance on way or the other determines whether we are classified as male or female. But regardless, we will contain within our nature both the male and the female principles and are engaged in a constant struggle to reconcile the two. Only by recreating the original balance in sexual union can we achieve a temporary peace.

That this conforms to the physical facts as we know them—females do contain androgens and males estrogens, the female hormone is of secondary importance it is equally valid psychologically. Sexual union in Tantra is only a means to achieve a higher end which is spiritual or psychic unity. This is a physical method but there is another more subtle method in which the aspirant does not need woman at all and comes under Bindu Yoga.

Tantra is a psycho sexual philosophy. It helps one to understand real nature of man and woman and how they relate to one another. Its view of love is totally different from our physical love. Because it is by definition, a revelation. It is a shock of recognition. After words you wonder why what you know is not self evident to everyone. You have got to know the techniques from a competent Tantric Guru to arrive at this understanding. By practice, even without understanding it will be made plain. Your body will understand it long before your mind puts forward to it. But no amount of understanding without practice will work. It is not necessary that knowledge precede experience performance will produce knowledge.

Tantra teaches to unite the male and female aspects through Yogic methods at the psychic centres, starting from Mooladhara at the genital region. There are Asana, organic control exercises, chantings, Meditation, auto suggestion etc. to increase the ecstasy.

Tantra gives a whole lot of exercises to improve the muscular strength, flexibility and staying power. Besides this tantra prescribes other exercises, Asanas, breath control internal contraction to improve pelvic thrust, isotonic isomeric thigh action and other helpful hints on sex training. Tantra aims to develop the sexual capabilities of both men and women to the tallest possible degree to reduce or eliminate differences in responsiveness, speed of arousal and orgasm.

Women Tantric gurus can, by gluteal control of their genitals hold within their genitals a man's lingam that even after climatic release, he cannot free himself from her yoni—thus obtaining coitus and achieving erection several times by pulsating, contracting, squeezing within her genitals grip. During extremes of eroticism the subtle life energies become vibrant elated and expansive but before this expansive experience is lost, the consciousness should be brought to bear on sealing the bodily orifices and circulating the life energies between the couple. Lovers lose the full potential of ecstasy because the convergence of their consciousness is too brief. But when by sealing the bodily orifices the ecstatic delight is contained within the bodies of the couple, the mind will begin to see visions and the heart will feel them. Both partners will share a mystic awareness of the meaning of their lives and beauteous visions will dawn in the mind's eye, helping to bind their soul together. Energy flow can be reversed by postures, by seals, by drawing up mentally or visually, by breath control, and by Meditation. Reverse sexual postures help channel sexual energy to the head thus stimulate the glands. Circulation, nerves and cells. During love making energy should be contained and circulated between the couple. When the upper and lower orifices of the body are sealed ecstatic energy, builds up. Consciously visualisation of the energy. Control of blood

circulation is possible with such techniques. Visualisation techniques are also used for treatment of various diseases and psychological disorders. Deep breathing and breath retention will enable you to experience energy flow. You will find that certain parts of your body feel awake while other parts feel asleep or just lazy. If you bring consciousness to bear on these parts. They will become energised, breath control and visualisation effectively direct the vital flow of energy. This can also help arousal of Kundalini Shakti from Mooladhara and gradually taking it up to Sahsrar. The visualisation technique is also utilised for mastering Sushumna. Constriction and abdominal contraction also help to draw up the downward moving energies. When by practice Apan and Pran are united at the pelvic plexus, the Kundalini Shakti is aroused. The Tantric principle is that one can through love, including physical love rise to a higher planes. Tantric knows the techniques to have orgasm without ejaculation by means of "vajroli", "Khechari" and "Kumbhak Pranayama".

Tantra is in reality use of a set of ego—dissolving techniques—sex, drugs and auto suggestion—to blast consciousness inhibition and primitive mind in order to remain there long enough to savour the experience. You are visiting the animal in you in a forgotten Eden.

Medical experts will not agree that "Vajroli" can help reassimilation of the ejaculated semen to the system as it goes to the bladder and comes out with the urine later on but the technique is simply a means to learn the control of sphincter muscles and autonomous nervous system. Actually the semen is drawn up just at the moment when it reaches the mouth of 'Nirudha Nadi' (a subtle nerve channel) through which semen moves down, by obstructing it by means of Antar Kumbhak. If you push the position of a water filled barrel, the water comes out through the nozzle then if you keep the nozzle

orifice closed or pressed with your finger then if you press the plunger down the water instead of coming out of the nozzle rushes upward almost similar type of action takes place when you obstruct the Niruddha Nadi. By means of Antar kumbhak. But for this passion is necessary—It is during passion that semen comes to the mouth or orifice of the Nirudha Nadi and just when it is at the point of coming down from the Niruddha Nadi and Antar Kumbhak is applied to make it gush up. This is to be learnt under the direct supervision of a competent Tantric. The purpose of Vajroli Mudra is twofold :-

(1) To turn the gross semen into subtle 'ojas' and

(2) To prevent conversion of subtle Ojas into the gross semen though many pashubhav people (persons of animal instinct) may use it for sexual enjoyment a wrong use.

Even the attracting of the discharged semen by means of "Vajroli" is advised as it helps in psycho-Yogic assimilation of Pran Tattva of the gross sement into the blood stream by means of auto suggestion. Ultimately the adept does not need woman at all. That is a subtle Sadhana known as Bindu Siddhi or Razah Bindu Yoga which helps arousal of Kundalini Shakti. There is Rakt Bindu at the pelvic region which is taken upwards through Sushumana to have union with the sweet Bindu at the Ajna Chakra or the place between the two eye brows and here it is stored as 'Ojas'. By repeating it again and again gross semen is converted into and stored as Ojas at the Ajna Chakra.

Tantrics by their techinques try to make the short lived Maithun Ananda to stay permanantly there by making the aspirant to stay permanaently in Anandmai state or in Anandmai Kosh...sexual union is only a means to achieve Paramanand. Maithun is not the end in itself but only a means to achieve Samadhi. Tantric

while indulging in sexual union has no passion. He indulges in a detached state of mind. His attempt is to achieve Paramanand state without discharging his vital fluid. Instead he continues to store his gross vital fluid as 'Ojas' in the Ajna Chakra.

Shirshasan, Viprit Karni Mudra and control of Prana helps preventing male ejaculation and prolonging the act of sexual union. If a man is completely relaxed as in Shavasana even then he can have erection by willing his Pran energy to go to the generative organ and let the woman on him to play the active role. The man remains detached. By practice under the guidance of a competent Yogi this can be easily mastered. The Muslim Suffis while renouncing sexual intercourse, used the language of love to describe the relationship of soul and God and in their search for the ecstasy of union with the deity, used both drugs and dancing (the whirling dervishes).

It has long been noted that in their efforts to express what is generally agreed to be an inexpressible experience, religious mystics have a tendency to slip into erotic imagery. This can be seen in the highly spiced poetry of the Sufi saints.

In the orison of union, the soul is fully awake as regards god, but wholly asleep as regards things of the world. In 'Shakti Poojan' worship of a nude woman's yoni (Punenda) is so elaborate (tantric rites preceding maithun are quite involved lasting an hour and a half before intercourse begins) that the aspirant becomes detached from passion (beyond passion and sense of tension) and his attitude is changed altogether, and whatever he does, he does as a religious rite to achieve oneness with the supreme soul or atman. The worshipper views the nudity with the innocent eye of the artist. They touch one another without self-consciousness, as

naturally as they might touch themselves. And at the culmination of the ceremony when all stimuli have combined in a process of mutual reinforcement they make love. It is slow, totally sensuous love in which they are mere spectators observers of their own bodies and reactions, than actual participants. They neither control nor care to control their actions. Some outside force seems to have taken care of that. What they are best aware of is love, universal love. For that is the value of ecstasy. Ego dissolution in sex requires psychological participation by both partners. If it is to be really effective. Intercourse becomes a spiritual as opposed to emission which is sensual. The ecstasies of sexual union do serve as a medium of magnetic and spiritual interchange. Psychosexuality is carried to these intense heights in religion. In the physical union of male and female there may be a soul communion giving not only supreme happiness but in turn conducing to soul growth and development and there may be a communion rightly understood, not significant than the begetting of children. Body consciousness and sexuality are intimately linked in a relationship of mutual reinforcement. In sexual intercourse ego—dissolution is incidental. The Tantric techniques are designed to heighten and protect this substantially modifying the after effects as well. Tantra is designed to take you into a world in which Siddhis (occult powers) are accepted fact of life. This Tantra is nothing but Yoga of two sexes, the union of male and female principle. Whether you call it union of Kula and Akula, Pragna and Apragna or Shiva and Shakti or yoga of Pran and Apan. Moon and Sun (Ida and Pingala or Nadi and Bindu) all means the same thing, the union of the two opposite.

Tantra Yoga does not come in the domain of Yoga. It is a different sect, school, or cult, or path employing different names, terms and techniques for achieving

its aim i.e. union non duality, mergence. It is believed that the inner teaching of the Tantras is as old as the Vedas, and it became popular from about 4th century onward, among both Hindus and Budhists. In its later days through abuse and misuse it fell into disrepute and some immoral and corrupt persons made it synonymous with every kind of erotic and sensual excess. The Tantras teach that spiritual advancement is best achieved by means of those very things, which are the cause of man's downfall, "With the very poison a little of which could kill any other being, a man who understands poison would dispel another poison. Those who have been burned by the fire of passion must suffer the fire of passion. The quack Tantrics thought that these were no restrictions at all and they could do as they liked—eat, drink, indulge in sexual excesses even commit murder and cannibalism. Such practices were carried out by those persons who called themselves Tantric Gurus. Their Karmas spread sins and encouraged wrong actions in society. They were Bhogis and Arogis and not Yogis and their actions were unlawful and sinful. Their path was the path of desire (Pravriti). Their desires were without restraint purely for self — gratification. Their immoral actions and perverted thinking brought restlessness and discontent in society. In the "Principles of Tantra". It is clearly mentioned.

"Spiritual self culture — must begin from the beginning. External worship leads to internal worship, internal worship purifies the mind, purity of mind induces concentration and meditation, when Meditation is ripe communion (Samadhi) ensues and the Sadhak (disciple) attains at last the highest bliss". Through misunderstanding and through the literal interpretations of symbolic acts, orgies, animal greed, Bhoot-Pret, lust and bloody sacrifices were carried on

in the name of Tantrism. The misconceptions of Tantric vidya spread beyond India to Europe and America where so called Tantric orders brought the name into further disrepute. An account of 'Panchtattva' published in 1822 is full of righteous indignation. Ritual of 5 M's—worship with wine (Madya), Meat (Mansa), fish (Matsya), grain (Mudra) and copulation (Maithuna) Michale Volin and Nancy Phelan have quoted in their book 'Yoga and Sex'. "Many of the Tantras —contrains directions respecting a most extra—ordinary and shocking mode of worship, which is understood in a concealed manner among the Hindus by the name of chukru (cakra). These Shastrs direct, that the person who wishes to perform this ceremony must first in the night, choose a woman as the object of worship. If the person be a dukhushinacharee, he must take his own wife, and if a Vamacharee, the daughter of a dancer a Kupalee, a washerwoman a barber, a Chandalu or a prostitute and place her on a seat or mat and then bring boiled fish, fried peas, rice, spirituous liquor, sweetmeats, flowers and other offerings and the female must be purified by the repeating of incantations. To this succeeds the worship of the guardian deity and after this that of the female, who sits naked"

W.Ward has mentioned in his book, "A view of the History literature and mythology of the 'Hindus', She (the woman) partakes of the offerings, even of the spirituous liquor and of the flesh though it should be that of the cow—the spirituous liquor must be drank by measure and the company while eating must put food into each others mouths. The priest then, in the presence of all—behaves towards this female in a manner which decency forbids to be mentioned after which the persons present repeat many times the name of some god, performing actions unutterably abominable and here this most diabolical business closes".

H.H.Wilson has stated in his book, "Essays and lectures on the religion of the Hindus." At present the persons committing these abominations (Vamacharee) are becoming more and more numerous and in proportion as they increase, the ceremonies are more and more indecent—Those who abide by the rules of the shastrus are comparatively few, the generality confine themselves chiefly to those parts that belong to gluttony, drunkenness, and whoredom". Though later accounts show that the writers were aware of the significance behind the ritual they are still filled with such phrases as "Scandalous orgies" "Gross indecencies" a licentious worship that leads to cruel self indulgence and sensual gratification. "On occasion of worship the female votaries are said to deposit their upper vests in a box in charge of the Guru. At the close of the usual rites, the male worshippers take each a vest from the box and the female to whom the garment appertains be she ever so nearly of kin to him, is the partner for the time of his licentious pleasure".

There are of course reasons for these misunderstanding and confusions. The tantras were abused, were regarded by 'Fools' as authority for unlimited licence and even when this was not so, the texts were so obscure, so long in accessible that non-initiates could hardly be blamed for failing to understand or see the spiritual significance behind the 'scandalous acts'. It was not until Sir John Woodroffe begun the collections, translation and publication of his Tantric texts in 1912 that a clearer picture of tantrism started to emerge.

To the Tantric every woman personified the divine mother. In the 'Panchatattva' the naked woman worshipped — richly ornamented sprinkled with wine sanctified by mantra was no longer regarded as ordinary

flesh and blood but as a goddess as Shakti as cosmic energy or as supreme wisdom intercourse between her and the Yogi symbolized integration and supreme bliss.

The chances of spreading venereal diseases caused by cruel crude and erotic techniques in sexual intercourse employed by the quack Tantrics and sex hungry fools cannot be ruled out the V.D. diseases namely Gonorrhoea sphilis, HIV and AIDS were bound to be there in society but these diseases were undetected and not reported due to the non-availability of present medical science techniques. It is worthwhile to mention that the present medical science says that alcohol is not conducive to healthy and happy sex life. Knowledge of sex science, mutual understanding love co-operation and sympathy with ones sexual partner are the important factors for a harmonious sex life. Alcohol acts by lowering the activity of the brain, first at its highest level (controlling thought) next at its motor level (controlling speech and movement) finally at its basic level (controlling sensibility and respiration). Alcohol is a top killer and produces tragic consequences in innumerable ways. Its physical and mental effects are traumatic and poisonous excessive drinking can develop hypertension abnormal heart beats. Drinking too much alcohol damages liver, pancreas and kidneys. We cannot willingly forget that no matter what we do cannot evade the law which governs the formation and expenditure of certain substances in the body which give happiness, awareness and tranquility. The body grows accustomed to drinks and drugs and ceases to act and react. The first few meetings with 'the lady of the Hemp' may produce raptures, ecstasies but the continued application impairs memory, clouds the judgement, blunts the effects and evokes misery.

Tantra Yoga, the psycho-physical discipline is systematised and perfected by the adepts to awaken the hidden faculties in man and to develop them to the fullest potential in order to ensure rapid liberation of his being and nature into blissful embrace Shiva—Shakti embodied in him. Tantra Shastras believe in the laws of Karmas. The vulgar practices that crept in Kaula Marga were reformed by crusades started by Sri Samkara Bhughwad pada and 'Panchastavi' in praise of Maha Shakti Divine mother. Dakshina Marg is a path which teaches the method of Japa of Mantras, Tantras and Yantras. With a mathematical accuracy Tantra Yoga is Mantra Yoga. Japa is done in a prescribed manner with precision concentration and devotion for the accomplishment of one's desires worldly or spiritual or both. Graded system of Sadhana is given according to the competence of the Sadhaka. The word Mantra means thought-form. By understanding of the inner-significance of the Mantra we can realise the nature of that which it represents. The sound when repeated acts as invocation to the deity. Mantra is selected by Guru for the Sadhak in consideration of disciples latent capacity, constitution and temperament each deity has its Mantra and form for Meditation. Suitability of particular Mantra is also judged from the first word of the mantra and whether Mantra Tattva agrees with the Tattva of the chanter.

6

Brahmacharya Yoga

“By semen, poetry, by semen joy,
by semen love, by semen shakti,
by semen devotion. so conserve your
semen and it will conserve you”

—Swami Muktananda—

At the dawn of human civilization , desire ruled all human activity. The human being behaved like a beast. Fear, hunger, sleep and sex were his only preoccupations. The fulfilment of the desires was his main activity. The element of fear was his major concern. In the course of time, with the advancement of civilization, the light of knowledge came to man. The veils of darkness and ignorance gradually disappeared. Through experience he learnt that the urge of hunger and sex could not remove the element of fear from his mind. So his quest for peace, happiness and security increased. It was sense of security which impelled him to form groups. The groups developed into clans, and living in a clan or society made him think about his relatives and friends. Previously the rule of life was survival of the fittest. The rule of jungle was gradually replaced by the rule of Law.

In Indian philosophy Kama or sexual desire occupies an important place there are many kinds of Purushartha,

ends of life, and one of them is Kama. According to Upanishads, there was the 'Worldstuff' or 'Sadvast' in the beginning and it was seized with Kama. It agitated in Kama and desired expansion. At the height of this agitation, there was 'bindu visphota'. The word Bindu means both a point and semen. When the Guru advised his disciples of Bindu is life. "Visphota means burshting out. Therefore Bindu Visphota the orgasm. The world was born out of Bindu Visphota. One can think of this Visphota as what modern scientists speak of as the 'Big Bang' that generated the universe. The big bang is the orgasm of Kama in the worldstuff. Bindu is also known as Teja, Prana, Kama and Vaishwanara. It is the Bindu's Kam (energy) that become Kam (space) from this energy was born matter in the form of Panchbutas. The Panchbhutas are mostly misunderstood. As Vedanta explains it, the Panchbhutas include the solid Prithvi, the liquid Apa, the gaseous Vayu, the energy within matyter, agni, and the amount of space an object takes up for its shape, called Akasha. This way the world was born out of Kama. Since energy is Kama, the universe is imbued with kama. Matter in all its states and diversity is kama and the space that houses matter is also an expense of Kama. In the 'Mahabharata'. Kamdeva, the god of Kama and love brags. "If anyone tries to beat me I grow manifold over his beating". The attempt to subdue or win Kama only makes it burst out with greater force. Generally Kama is regarded as an obstacle to Moksha and Brahmacharya while celibacy is seen as an essential pre-requisite on the road to Moksha. Some sects of Tantra use Kama as an instrument of Moksha. For these Kama is more spiritual and less carnal. But the only meaning of Kama is not sexual desire. It is not limited to it. There are terms like Dharma Kama, Arth Kama, and so on, which signify the means for a householder to achieve Moksha. According to M.K.Gandhi, Brahmacharya means perfect control over all the senses and organs.

For the perfect Brahmachari nothing is impossible but it is an ideal which is fairly realized. "He who attempts to control one organ and allows all others free play, is bound to find his effort futile. To here suggestive stories with ears, to see suggestive sights with the eyes to taste stimulating food with the tongue to touch exciting things with the hands and then at the same time to try to control the only remaining organ is like putting one's hand in a fire and then find to escape burns. An impure thought is a breach of Brahmacharya, so is anger. Remember that there is always a limit to self-indulgence but none to self-restraint". Stressing the need of purity in the present time of moral degeneration Brahm Baba has said that one and all should observe complete Brahmacharya (Celibacy) in thoughts, word and deed. Sex lust is enemy number one of the soul, Baba taught the young generation to lead a life of complete celibacy and simplicity so that their energy spiritual, as well as physical could be utilised for real service of mankind. He preached complete celibacy even between husband and wife because he believed that marriage is a "sacramental union" and no "Legalised perversion".

Brahmacharya does not mean withdrawal only from sexual enjoyment. Brahmacharya Yoga covers a wide area of man's life. Actually Brahmacharya Yoga is the stepping stone to a civilized way of life—A life that is clean, decent, full of compassion and purity of action. Brahmacharya Yoga developed many centuries after the evolution of the basic principles of self-restraint—Yama, Niyama, and Sanyama. The Rishis and sages of India were householders, married people and Brahmacharya. Yoga governed their personal life, the life of the family and life in society. To lead a life of Brahmacharya by following the code of conduct and controlling all the urges, animals and emotional was not difficult in Gurukules" where pupils were trained in the art of living both individually and collectively.

Brahmacharya Yoga is the means to a harmonious life. It is the path to righteousness. Those who are averse to this path belong to a lower stage in human evolution. Brahmacharya Yoga lays stress on healthy and desicplined sex-life. The six evil tendancies which lead one into a sensual and sexual life cannot bring peace and harmony in life. The unchaecked exercise of Kama, Krodha, Lobha, Moha, Mada and Matsara will lead to perversion and destruction. By observing the principles of Brahmahcharya we can bring about a healthy and superior society.

The true Brahmacharya is not found standing by the roadside on one leg or sitting on beds of nails for public edification. The true Brahmacharya is not like the wondering ascetic or the hermit who has renounced the flesh. In the east, particularly in India, countless so called holy men, mud smeared daubed with ashes or, dung with matted hair, sometimes, naked sometimes mutilated, are seen wandering with their begging bowls. They call themselves Brahmacharya Sadhus. For the most part people accept and even revere them. But they are little more than professional beggars, without scruples. restraint or spiritual purposes. a true Brahmacharya works unceasingly his sesxual instincts or transmute them into a means of attaining the goal of Yoga, Immortaity, and freedom. He is indeed a holy man, dedicated to God, his life an unceasing attempt to become more spirit than flesh.

The early Christian methods of subdung the flesh, though often differing in practice from Yoga were founded on the same aspirations. In east and west there is a along history of Man's struggles to turn sexual desire into spiritual strength by crude, grotesque and drastic measures. Even emasculation was not unusual. In India, China, The Middle East, Russia, thousands maimed and tortured themselves in attempt to destroy

the 'Serpent of desires'. Monks spent sleepless nights praying and reading holy books, lest the devil, disguised as a beautiful woman, visit their dreams. In Tolstoy's dramatic story, 'Father serges' a celibate monk tempted by a beautiful woman, chopped off his index finger to drive out desire by shock and pain. The western saints and mystics who observed long exhausting fasts, wore coarse hair shirts or heavy chains were motivated by the same Idea, to kill one form of torment with another. They were breaking the body, mortifying the flesh but all these methods led to untold misery, premature ageing, disease and untimely death. A true Brahmacharya regards his body as the temple and vessel of the spirit. He always respects the body. In general the suppressive practices are more common among primitive ascetics. The more intellectual schools of Yoga believe in utilizing sexual energy by sublimation or transmutation into other forms of energy, "Suppression and sublimation have somewhat different meanings in yoga and in wordly life. The Yogi, voluntarily suppresses or sublimates for a specific purpose, but no normal man or woman with normal sex instincts willingly deprives themselves of this natural part of life. For them, the usual causes of celibacy are factors beyond control—poor health, ignorance, fear, social, economic, even sentimental, reasons. The effects vary sex urge. Sexual desire in its lowest animal form, keeps the human mind tied to the earth, prevents it soaring to higher planes of consciousness, "There are those who believe that the spirit is liberated after sexual tension; artists have claimed that the greatest creative inspiration comes immediately after intercourse, when completely freed of desire, but most mystical schools including Yoga hold that loss of semen is destructive to mental powers, that sexual energy should be transmuted to energy of the mind. Seminal energy retained in the body is directed to the brain where it manifests not only as psychic gifts and greater control of concentration but

as ojas, the subtle power of command and personal magnetism". According to Hindu scriptures "He who can give upward flow to the seed is a god". "The Nath yogis who practised sexual techniques with woman for liberation (retaining their bindu) regard women as the arch enemy the destroyer of man's strength. She is a serpent a hypocrite cat., an enchantress by day and tigress by night for she seeks the man's seed. Charmed and allured by her, he loses his vital strength".

In one of the Nath legends the Yogini Mahanamti tells her son "All men serve women gratis, the maha—rasa within the body is worth 1000s of chests filled with gems, and when that wealth is lost man becomes subdued by a woman. A lioness is she and casts eyes like a tigress. She leaves aside the bones and flesh and sucks up the Maha-rasa. Brahmacharya Yoga is the path to righteousness and fulfilment. This type of Yoga is the base of all yogas. In Brahmacharya Yoga special techniques are employed for suppression and sublimation for transmuting bodily energies into great spiritual force. According to Hindu scriptures there are ten vital energies in the body but here it would be relevant to mention five energies physical, mental, sexual, energy of intellect, energy of soul. The last two are independent and cannot be transmuted. Since energy of the soul, the divine spark is part of universal energy. It is also indestructible. Sexual energy (conscious or unconscious) energy or energy of the mind. The seat of physical energy—known as mother of energies or sun energy is the solar—plexus. Sexual energy (moon energy) is in the region of the sex organs. The head (Brahmacharya) is the seat of mental energy. Conservation of seminal energy leads also to development of higher faculties in all yogas. Unbridled sex—resistance against disease is depleted as a result of uncontrolled waste of semen, which is the protector

of our body, and for that reason men are bound to court premature death. Women also court premature death by recurrent pregnancy borne in a depleted economy. Many women have to sacrifice themselves to the unbridled sex—hunger of their husbands.

In India, there is a class of uneducated or half educated women in the upper and middle class families, who view frequent intercourse by their husbands as the token of undivided love and devotion towards them. If the husband is a bit restraint in sexual behaviour they are afraid of losing husband's love for them, they get suspicious of the husband being attached to other woman and as such they try their best to induce their husband to frequent intercourse. It is not that they are sex-hungry rather their helpless attitude due to economic subordination. There is a popular saying among Hindus—"Wherever is bhog, Rog is there". As an adequate quantity food nourishes the body and keeps it fit, similarly a disciplined conjugal life also satisfies the body and mind. The sages have advised that intercourse should be performed only once a month. As husband observing such disciplined and restricted sex life is also a true Brahmachari. This teaching of the sages has its echo in current Bengali proverb to be united.

"Once a month, a dozen a year, try if you can abstain further". According to Kalidas (The poet-dramatist). "The wife should be the lady friend or the minister of the home. "Her jurisdiction has been expanding over many spheres of life. In our country, the vision is not yet so much widened, but it cannot be resisted any longer. We must keep pace with the march of times. With the march of civilized nations, otherwise we will meet inevitable extinction. The expansion of the boundary of 'the home' will bring about another change as a result of which the ideal of conjugal life now in vogue will also definitely be revolutionised. If we stretch our vision out to the

distant future, we see the emancipation of women and their authority over every stratum of society, which will be the inevitable result of our social progress. If we look back to the womankind as modelled by our ancient traditions. It can be asserted that this emancipation will definitely put a curb on the Biological aspect of married life also. So it will not be illogical to cherish the hope that on which the philosophy or conjugal life was established in ancient India will be more decent and perfect in future. The wheel of time is turning and we cannot stop its revolutions.

Conjugal union or marriage is not a means of seeking selfish pleasure alone, even it is not meant for only Platonic love—the sweetness of the innerself must also spread out side—because we owe our responsibility to the society and to the world at large. The Vedas made it an obligation for the married man to create good children for the society. To achieve this objective, the standard of love between man and woman must necessarily be elevated to the level of ideal love. Without deep love, without true love between the couple good children cannot be born. In this sphere two Tapasyas—the purification of heart and sex-control are essential. Inviolable devotion to each other is the sign of true love. Men are sometimes guilty of laxity in this regard due to Biological reasons, while this Biological instinct makes chastity in women a natural endowment. “Chastity in a woman is a priceless treasure of a nation's cultural heritage”. Swami Vivekananda said that there exists a relative proportion between the chastity in women and the Shivatattwa or self-knowledge and self-control in men. “Great souls are born in a country where women are pure, where chastity in women is esteemed high where tie of marriage is regarded a holy union”.

Brahmacharya Yoga lays stress on the development of inner strength. The inner strength can be developed

by Yogic techniques such as Pranayama, Asanas, Meditation, Yogic diet and controlled sex-life. These techniques are not confined to ascetics and Yogis alone. They are for all, infact all Yogas including Kundalini Yoga demand the concentration of all energies. Kundalini 'The sleeping serpent' can only be roused by a increased effort of extra energy. This extra energy is drawn from sublimated sex. Sublimative techniques are based on the principle that physical, sexual and mental energies are interchangeable. Mental energy is the master, commanding all other energies. The transmutation of physical and sexual energy of the mind is achieved by combined thought and breath, supported by certain Asanas.

One of the aims of Brahmacharya Yoga is harmonious development of mind, body, and spirit. Health is the key factor in the human evolutionary process. Health is not just physical fitness or absence of disease. The term health has much wider connotation. It is something that can go beyond physical and mental dimensions. We are endowed with peerless organic capacity to comprehend not only the outer physical world of objects but also his divinity that is innate in us, god, obviously expects man to do what others cannot do. But as the philosopher Spinoza said, men ignore health and the love of the eternal and infinite and deem riches, fame and sensual pleasures as the highest good. When Yudhishtira was asked by the Yaksha in 'Mahabharata' the highest gain in human life, the prince declared that it was sound health.

Today, in this age of AIDS, we need to be healthy not only at the physical and mental level but also at the spiritual level. Mental health is equally important. A person cannot be said to be mentally healthy if he is inflicted with lust, greed, attachment and sexual indulgence. Brahmcharya Yoga can give sound body and

sound mind and spirit and help human being attain the zenith of perfection. Stressing the need of purity in the present time of moral degeneration, Brahma Baba said, "observe complete Brahmcharya in thought, word and deed. Sex lust is enemy number one of the soul. Lead a life of complete celibacy and simplicity so that your energy spiritual as well as physical could be utilised for real service of mankind".

7

The Yogic Cleansing

The Asanas and Pranayama exercises can give more benefits if the practitioner takes the acts of Yogic cleansing—internal and external. The purification of the body is necessary. When the body is clean the flow of energy can become systematic and more effective. In yoga this act of purification is called 'Kriyas'. These acts of purification should be performed early in the morning. All the systems in general after cleansing nose, throat esophagus, stomach, intestines and sex organs. Besides internal purification the purification of the mind is essential. The mind can be purified only by getting rid of the evils like jealousy, hatred, greed, ego, pride which produce negative emotions and cause maximum harm to the personality. In Hatha Yoga personal cleanliness is not limited to superficial washing of the skin. Internal and External purification is part of the practitioners life. Complete washing everyday is essential a bath or shower. Teeth should be cleaned and mouth washed out after eating, the tongue should be gently scraped of impurities with an inverted spoon, before the first food or drink of the day. Abdomen contractions to promote internal

cleanliness and evacuation of the bowels should be part of the morning routine.

Where sex is concerned the need for high standards of hygiene is even more important, not only for aesthetic reasons but out of consideration for those intimately concerned, sensitive people have been repelled in lovemaking by a partner's lack of personal cleanliness. It is a fact that civilized beings are not attracted by unpleasant smells and a slovenly appearance. The body should be kept scrupulously clean at all times, with particular attention to genital organs. This is imperative before retiring. If two people are sharing a bed, clothes should be changed frequently underwear everyday, stale perspiration, bad breath are not conducive to romantic interludes. Women should keep the vagina clean by douching with luke warm water in winter and cold water in summer. This should be done regularly and is specially necessary at the time of menstruation, but sexual hygiene is not limited to women. Many men could improve the cleanliness of their sex organs, keeping them free from traces of urine or glandular secretions which if left unwashed, give off stale smells. The question of sleeping in separate beds must be decided by individual preference. It is healthier to sleep alone, there is more room for relaxation and less likelihood of infections, of sleep being disturbed, but sometimes it is better to let emotional factors outweigh such considerations. It is more important that both partners agree about fresh air in the room for this is essential to sound healthy sleep. The yogic cleansing or internal washes are great aids in curing chronic and prolonged sufferings and these washes have a preventive value against all sorts of infections. Some yogic cleansing techniques are Dhouti, Neti, Nauli, Bastikriya and Trataka. Dhouti, implies wahsing. In yoga, Dhouti Kriya gives a specific sense of wahsing. Dhouti

kriyas as prescribed in 'Hatha Yoga' are difficult processes for the common man, and made simple and also new precesses invented by Swami Shivananda Saraswati:-

Baman Dhouti

Technique

Drink 2-3 pints of tepid water and insert the ring finger, middle finger and fore-finger together upto the 'Uvula' in the throat, a slight titillation with the finger ends will excite the tendency for vomitting. Repeat this artificial vomitting process until the stomach throws out the entire quantity of water drunk. A little salt may be mixed with the tepid water by those who cannot vomit even by titillation in the throat with finger ends. This process of cleansing will help bringing out biles, mucus etc. from the abdomen, by this Kriya, the accumulated mucus and germs which are harmful to the body will be washed off the stomach. This method of Dhouti can also remove indigestion, acidity and caterrhal troubles.

Barisara Dhouti

Technique

Take a soft kind of rubber tube, 3 ft. in length and 3/4 inch in outward diameter and disinfect it in boiling water for 3-4 minutes everyday. Now prepare 3-4 pints of tepid drinking water and drink it up to your fill. Then stand slightly bending forward and insert the rubber tube below the throat and try to devour the tube inch by inch and increase devouring day by day. The whole tube will go down the throat easily in a couple of days. When this is achieved, the water drunk will not be thrown out in a gush, rather it will flow down through the tube incessantly wahsing out decomposed bile, rotten mucus and particles of undigested food-stuff. When the water has thus come out, a further practice to 10 to 15 minutes

pressing air in the tube like conch-blowing will wash out the poisonous impurities and bacteria from the pancreas (the abdomen below). This internal washing is not accomplished by introducing the tube into the stomach just for once only, but for a few times repeatedly, here after the tube should be slowly dragged out, and washed in soap-water. This technique of stomach wash is not difficult and both the sick and healthy can do it. This method of stomach wash prevent biliary troubles, acidity, indigestion, constipation, colics, Neuralgia, catarrhal troubles and T.B. infection.

There is another type of Dhouti namely Basra Dhouti which is done with a piece of linen—24ft. in length and 1 inch in width which has to be devoured and pulled out to cleange the intestines, but being a rather difficult process. It is not disucssed in detail.

Sahaj Agnisara Dhouti

Technique

Stand erect and place your hands on both sides of the hip placing the thumbs above the hip bones but below the last rib, and the fingers on the navel. Now the thumbs shall remain fixed but other fingers must exert pressure on the navel so as to attach it with the spine, behind and release the pressure soon after it repeat this process 10-15 times. Initially one may experience a little pain, primarily the pressure may be limited to a rather comfortable extent and gradually the limit will reach the final definitely. For fatty people it will be difficult to fix the navel with the spine.

This type of Dhouti Kriya helps flowing down of healthy blood and air into the particular region of the abdomen where various types of bacilli hatch up. This type of Dhouti cures dysentery, diarrhoea and such other diseases of stomach. Women during the menstrual period should not practice this Kriya. Moreover pregnant women are also prohibited to do this Kriya.

Agnisara Dhouti (1)**Technique**

Stand erect and with inhalation try to draw in the navel with the lower abdomen towards the spine as far as possible, after inhalation is complete relax the tension with exhalation. Repeat it 8 times. This Kriya increases appetite and the liver and spleen are corrected of their defects. It also cures indigestion, diarrhoea and dysentery.

Agnisara Dhouti (2)**Technique**

Breathe out completely and retain breath. The navel region should be pulled in and out so as to attach it to the back and that in as many repetitions as possible during the retention of breath. When inhalation becomes a pure necessity, inhale and relax the abdomen. Repeat the process 5 times. This kriya invigorates the glands of agni (liver, spleen, and pancreas) and as such it is indispensable in curing all sorts of stomach infections.

Nauli

This exercise gives extra strength to the tubular structures of the whole pelvic and abdominal region. Some yogis call it 'Louli' also.

Technique

Stand at ease keeping the feet 12-18 inches apart and the upper body slightly inclined forward. Place the palms on thighs, now exhale completely and pull in the belly up to the backbone behind, exert pressure on the thighs in such a way that the muscles of the pelvic region are moved as also their region are moved as also their offshoots in the abdomen simultaneously, now push out

this entire muscular structure, when perfected these will stand out in the shape of a hard rod. Perform it in the middle of the belly during the period of retention of breath and then inhale and relax.

(a) *Bama Nouli (of the left side)* :- Stay at the Nouli of the middle. Relax the pressure of the right hand slightly but keeping that of the left as usual, now slightly incline the trunk to the left and move the abdomen muscles of the right side and this when perfected will give rise to another rod shaped muscles just to the left side of the original Nouli of the middle.

(b) *Dakshina Nouli (of the right side)* :- When the left sided figure is performed at ease, try this right sided one in the reverse order i.e., relax the pressure of the left hand keeping that of the right in tact, bend the body slightly to the right and try to raise the right side which will finally succeed in forming the rod of muscles just along the right side of the middle rod.

These variations of Nouli are regarded by Yogis of great importance. Basti and Dhouti cannot be performed correctly unless Nouli is mastered. Nouli helps equate the three basic physiological elements of wind, Bile and mucus. This is a very useful exercise for the muscles, nerves and arteries in an around the abdomen. By this exercise the liver and spleen are made stronger. Nouli also cures the displacement of the women. The prime of life is the best period of its practice. If people having heart disease, high blood pressure, stomach ulcer or duodenum or peptic ulcer or intestinal T.B. should not practise it. Even old men with normal health should not attempt it.

Neti Kriya (Nasal Wash)

This kriya is performed through the nose and it is done to washout the nose upto its root and some portion

of the forehead, making that region free of germs. There are two methods of this wash. One with a cotton thread well-soaked and polished with bees-wax or with water inhaled through the nose. The second method is with rubber tube. But wash with water remains easy and satisfactory method. This method with water is known as Nasa-Pan (to drink water by nose)

Neti Kriya (Nasal Wash)

This Kriya should be done after waking up from sleep in the morning. If you have chronic constipation mix upto 2 ounces of lemon juice and 1/4 ounce of common salt with about 2 pints of tepid water and drink it up directly and lie flat on back and perform Bhujangasana and Salabhasana, Ardha chakrasana 4 times each. A strong motion is expected in course of next 15 minutes. It is a very good and harmless process to cure chronic constipation. After drinking water the above mentioned asanas allow the water to travel throughout the stomach and intestines. It cleanse the decomposed bile and acids in the stomach and intestines and then travels, upto the large intestines where it reduces the contents into a suitable liquid and substances out of the body. Lemon juice has the properties as a laxative and as an appetising agent and it contains sufficient calcium in it which is so vitally needed for preservation of health. It is both medicine and diet for the people who are not habitually constipative. Those who are neither sick nor weak may avoid the lemon juice and common salt in tepid water and may instead drink two glassfull of cold water.

Sun Bath

Sun bath is called Sweda-Kriya in Ayurveda, since sufficient Sweda (sweat) is flown out of the body with it. This Kriya is prohibited to the people with a 'bilious' or as carbonaceous constipation. But a constitution

mainly 'hydrogenoid' or 'muroid'. It should be performed at 10 A.M. in winter and 8 A.M. in summer.

Technique

Lie flat on the face keeping only the head under a shade or a suitable cover, the rest of the body should be completely exposed to the rays of the sun, completely denuded if the place is so solitary as to allow no eyes falling upon you. As soon as the backside will get heated up, or perspiration starts up, turn round and take the rays of the sun on the chest for several minutes only. During summer the head should be first of all washed with water before taking sun bath. The head should be rubbed with a wet towel and then the wet towel should be utilised to cover the head and ears. Then sit erect in the sun, turning the back to it. Three fourth of the time of sun bath should be spent on the backside and only one fourth for the chest. After the sunbath you should go under a shade and rub the whole body with the wet towel. Primarily 15-20 minutes sun bath is sufficient with increasing tolerance, the limit is also slowly increased. The body feels a pleasant sensation with a soothing effect after a sunbath. Sunbath is great aid to the methods of curing cough and cold, asthma, anaemia, dropsy and nervous troubles. Modern science holds that the human body gets vitamin D from the rays of the sun. There is an only substance underneath the human skin which is transformed into vitamin D by the rays of the sun. Vitamin D helps in building bones and teeth and it has an important bearing upon the calcium and phosphorus metabolism.

Baths

Water Bath:- According to Rigveda "Water is the medicine, water purges out disease from the body and keeps it full of vigour and water being panacea for all diseases, may cure all your maladies". Water preserves

the body. Water is full of a special potentiality as a healing agent. Science says that the earth is 70 % of water and that is the approximate ratio of water in our bodies too. The sages of the old ages were quite conscious about the virtues of water and they advised three daily baths for young and old men and women alike. Water bath in the early morning is beneficial to the body system.

Abultion

Abulation is the most beneficial system of baths and the waters of a flowing river is the ideal for it. The tanks or ponds are only substitutes. First of all head is to be well washed with water and eyes should also be lavishly sprinkled with water. The bather should stand in water waist-deep for 15 minutes rubbing handful of water constantly on and around the navel and dive a few times and finish the bath.

Tub Bath

Since baths form an important routine of our daily life, the tub-bath is being recommended as a substitute for abulation in the river or a pond. Hence a tub must be selected individually which must allow a comfortable sitting inside and the tub contains sufficient water to dip the lower upto the navel region when seated. Now wash your head with cold water, wash your eyes, face etc. and then sit in the tub comfortably for 15 minutes. After this, wash the upper portion to complete the bath. Regarding the temperature of the cold water for such a bath, it should always be a few degrees below the body temperature. Only in severe cold or in some kind of rheumatism, tepid or hot bath is necessary. Otherwise there is no benefit in hot baths. Since hot bath always depress the nerves, muscles and glands and consequently the whole body leading to a point of vulnerability to disease. During the winter, both the sick

and healthy may take half tub-bath in the morning instead of full tub-bath.

Air Bath

Air is of paramount importance for life. Without air life will cease. Oxygen is indispensable for the process of combustion taking place in all the various cells of the body. We get oxygen direct from the air. When we inhale oxygen of the air dissolves in the blood and when this impure blood carrying carbon dioxide reaches the lungs, carbon dioxide is released into the air present in the lungs and is exhaled with it. When we breathe in oxygen of the air enters our lungs and when we breathe out, carbon dioxide is expelled. The main source of oxygen on the earth is vegetation such as trees, plants, shrubs, densely populated and industrial areas are comparatively deficient in oxygen. Air bath implies standing in open space and doing deep breathing to ventilate the lungs. The cool breezes of early morning, being rich and pure in oxygen, purifies the blood and the body and make the mind cheerful. One should always breathe through the nose and one should always take deep and longer breaths. The face should never be covered while sleeping. It is very injurious to health.

Massage

The importance and uses of massage cannot be underestimated. The word massage has a long history. The roots of massage stretch back into the past. Massage has been applied differently in India, China, Greece, Rome and Egypt. Massage has a very salubrious effect on the skin, muscles, nerves and all the systems of the body. With massage the pores of the skin are opened up and thus eliminating poisons from the body. Massage

reduces the tension in the muscles and eliminates the accumulation of lactic acid in the muscles. Massage also tones the circulation of blood. Slow and scientific massage with light pressure relieves tension of the nerves and increases their efficiency. Massage of the abdomen tones up the digestive system and helps elimination of wastes. Moreover massage stimulates the urinary and eliminates the toxic substances from the urine.

The correct technique of massage is to begin with the massage of arms and legs. Then chest abdomen, back and buttocks. Last of all face and head. Cloth should be used for massaging the back. The individual should massage with his or her own hands. A massage should be followed by a cold or hot bath according to the season. Those persons suffering from high blood pressure, should do reverse movements in massage, i.e. from head to foot. But persons suffering from fever should not do any massage. Pregnant ladies and women during the period of menstruation should avoid any kind of massage. Moreover, persons suffering from diarrhoea, gastric or duodenal ulcers, skin diseases, appendicitis, tumours chronic heart ailments, should not do any massage.

Trataka

Trataka is a very effective exercise for improving eye sight, developing concentration and psychic powers. Different methods have been suggested by yogis for doing Trataka. Some do gazing at the sun, gazing at the moon, gazing sun in a trough of water, gazing at a spot or object, gazing at a flower. But researchers have reported gazing at the candle most scientific and very effective for the purification of eyes and improvement of vision.

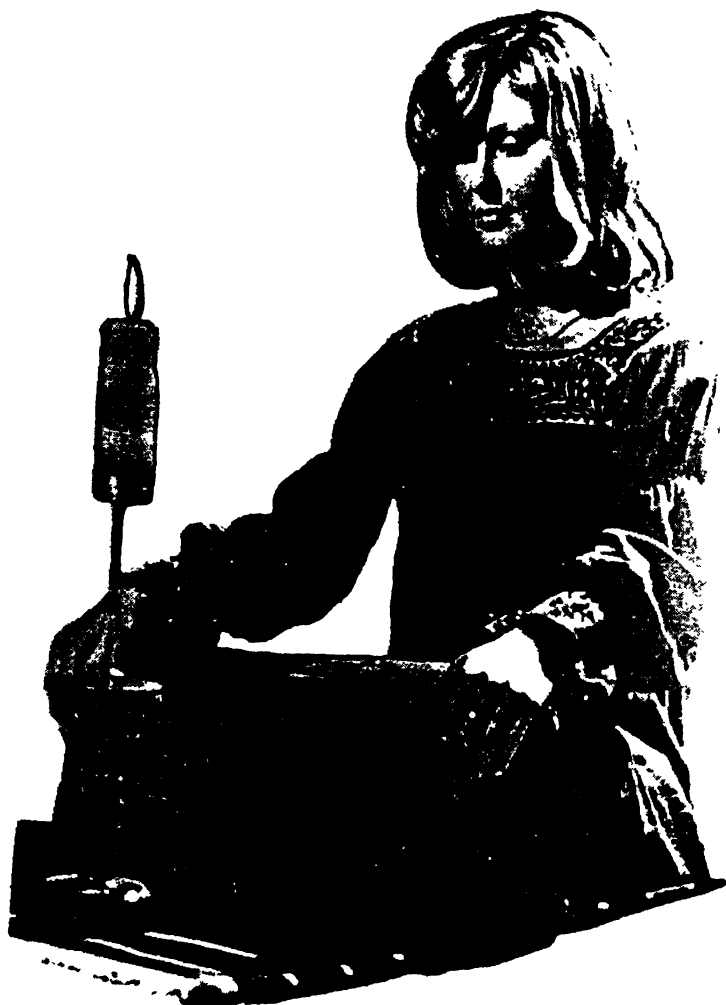


Fig. 7.1: Tratak

Technique

Sit in Siddhasana or Padmasana with back and head straight on a folded blanket. Keep your mind relaxed, free from any tension, worries, anxieties and stress. Keep a lighted candle in front of you. Gaze and Gaze at the

bluish part of the flame of the candle without winking for a couple of minutes till tears trickle down from your eyes. Then close your eyes for a couple of minutes. After closing the eyes, rub your eyes gently with your palms. Repeat this exercise 5 times. Trataka is a yogic cleansing technique very beneficial for eyes and power of concentration.

8

Warm-up Exercises and Asanas

"Inactivity, Supineness and Effeminacy have ruined more constitutions than we ever destroyed by excessive labours. Moderate exercise and toil, so far from prejudicing, strengthen and consolidate the body".

—Richard Rush—

The importance of warm-up exercises cannot be underestimated. Warm-up exercises are very important for every individual. One who takes regular exercises will stay physically fit, retain youthful vigour and keep a youthful shape. Many Sadhaks while doing Asanas complain muscular retardation. It is because they do not do warm-up exercises before doing asanas. Good muscle tone is not, as some people fear, synonymous with bulging biceps or muscular thighs. Most of the exercises given here are selected to keep the Sadhak supple and muscles relaxed. These days when the lifestyle of people has become sedantary, the importance of exercises has increased rapidly. Everyone needs a certain amount of exercise. The practitioner of yoga must do exercises before doing Asanas. Improved muscle

tone brought about by regular exercise is visible in a more streamlined shape. Correct exercises can improve the bad posture habits. Exercises will give us added energy and enthusiasm because to be fitter means to feel better. Today, doctors are warning that largely sedantry life style plus the effects of over-eating and lack of exercise are main causes of many diseases and ailments. These warnings of the doctors often go unheeded. How often you go for a long walk? If you are a car owner, then the answer is probably never. Walking can benefit almost every muscle in the body. While you walk think about your posture and movement. Do not hunch your shoulders, drag your feet or amble along. Walk briskly in an upright position with your arms swinging naturally. Regular exercise can help you achieve physical fitness. That degree of fitness will vary from individual to individual. But in every case it means that the body is more able to resist disease. Even the common cold is less likely to strike the person who is physically fit. Physical fitness implies increased working efficiency whether the job is sedantry or manual. If you are physically fit and energetic you find work less tiring and more rewarding.

Exercises burn away excess calories and keep body weight under control. Exercises also reduce the chances of thrombosis in the arteries of heart, brain and legs, and improve oxygenation of blood and remove excess secretions and phlegm. Exercises tone up metabolism and improve immune system which helps fight infections. It is a mistake to think that warm-up exercises are concerned only with the muscles. No muscle can contract without an adequate blood supply to bring it oxygen and fuel in the form of glucose. Nor can it continue to contract without a good blood supply to carry away the waste products of fuel consumption. A good blood supply requires an efficiently beating heart

and a good oxygen supply requires an efficient respiratory system. The muscles of the heart and the respiratory system are interrelated. Warm-up exercises enable us to perform more work without using up oxygen faster than the lungs. Warm-up exercises the speed with which our body recovers from fatigue. Warm-up exercises are highly beneficial for every age, without exception. Warm-up exercises also remove depression. Warm-up exercises are important for physical and mental health. Warm-up exercises can increase bone density which is important in post menopausal women in lessening the adverse effects of osteoporosis. Warm-up exercises are for strength, vigour, vim, suppleness and stamina and can considerably improve life expectancy in older age. It is necessary to do the following warm-up exercises before doing Asanas:-

1. Exercise No. 1 (Stationary Running)

Stand erect with legs apart and hands on your waist. Breathe freely and run on the spot raising your toes. Raise your knees as high as you can. The higher you raise your knees, the more beneficial it is. Repeat it 10 times.

2. Exercise No. 2 (Side Bending)

Stand erect with your feet wide apart and your hands on your hips with your elbows leaning side ways. Breathe freely and bending your body to the left tilting your head, and neck with it. Then likewise bend towards the right side. Repeat it 10 times.

3. Exercise No. 3 (Chin High Kicking)

Stand erect with your feet together and your arms stretched out in front of your shoulder height. Inhale slowly and rhythmically without any strain. Kick upwards and forwards towards your hands. First with your right foot followed by left foot. Exhale and lower your kicking leg. Repeat it 10 times.

4. Exercise No. 4 (Three Way Leg-Hands Swing)

Stand erect next to a sturdy object and stretch your right arm out at shoulder level. Keeping your head up, mouth closed and stretch your right leg backwards 20 times and lean your body forward. Stretch as high as you can without any jerk or strain. Repeat it 10 times with your right and left legs. Inhale slowly while stretching your body forwards and exhale while returning to the original position.

5. Exercise No. 5 (Head contraction)

Sit in Siddhasana or Padmasana with your back straight and elbow well up. Link your hands behind your head. Inhale for a couple of seconds and retain breath for a couple of seconds. Then exhale slowly and rhythmically and push your hands against your head. Repeat it 10 times.

6. Exercise No. 6 (Hands Stretching)

Stand erect with feet together, stretch your hands and raise your toes. While stretching the hands at the shoulder level. Inhale slowly retain breath for a couple of seconds and while lowering down the arms and toes exhale slowly.

7. Exercise No. 7 (Waist Side-bend)

Stand erect with your feet wide apart and link your back straight, bend to the right to your arms level with your ears and make sure that your body does not lean forwards or backwards. Inhale while bending towards the right and exhale while coming to the original position. Likewise bend towards the left. Repeat it 10 times.

8. Exercise No. 8 (Side-leg Raised)

Lie on your left side with your left hand supporting your head and keep your right hand on the floor in front of you and your legs together. Keep your body still. Raise your right leg as high as you can but your body should not lean backward. Lower your leg while raising the leg inhale slowly when the leg is lowered down exhale. Repeat it 10 times.

9. Exercise No. 9 (Knee to Chest Raise)

Lie on your back with your feet high together and your arms by your side. Keeping your head on the floor, raise your legs high and hold them at an angle of 45 degrees inhale and retain the breath for a couple of seconds and then bend your legs and bring your knees near your chest and exhale slowly lower your leg and come to the original position. Repeat it 10 times.

10. Exercise No. 10 (Arms-leg Stretch)

Sit in Siddhasana and keep your head hands up and stretch them as upwards as you can and stretch your legs also. While stretching hands upwards inhale slowly and retain the breath for a couple of seconds. Then lower down your hands exhale. Repeat it 10 times.

11. Exercise No. 11 (Crab-Stretching)

Lie on your back, bend your knees and place your feet flat on the floor. Put your hands on the floor, close to your shoulders with your arms bent and your fingers pointing towards your shoulders. Push upwards with your arms, legs and arch backwards. Push your shoulders directly above head between your arms. Repeat it 10 times.

12. Exercise No. 12 (Bicycling Stretch)

Lie on your back with your legs tight together and your arms stretched out. Bend your knees and raise your left and right leg. Move your legs quickly as if pedaling. Do retention and exhalation slowly and rhythmically.

13. Exercise No. 13 (Arm Press Stretch)

Place both hands on a chair. Keep your toes on floor, feet apart and body straight, bend your elbows bringing your chest close to the chair. Then extend your arms again. Inhale as you press up and exhale as you lower to the chair. Repeat it 10 times.

14. Exercise No. 14 (Feet High Stretch)

Place both feet on a chair and your hands on the floor, keep the hands apart, keep your body straight and arms extended. Then bend your elbows lower your chest as slowly as you can. Inhale as you press up and exhale as you press out. Repeat it 10 times.

15. Exercise No. 15 (Back Stretch)

Sit in any comfortable posture, stretch your legs together forward, hold your knees firmly and draw your head downward and forehead towards your knees. Elbows should be bend outward. Knees should remain straight. Remain in this posture motionless for a couple of seconds. Inhale while pressing the knees and stretching the spine and retain breath for a couple of seconds and exhale slowly.

16. Exercise No. 16 (Spine-backward Stretch)

Sit in Vajrasana (Heals, knees together) place your hands on floor at your sides and move arms slowly backward until you can rest hands on floor, lower your head backward slowly and arch spine inward and stretch

your trunk upward, buttocks should remain on heels and knees pressed together. While lowering your head backward breathe freely. Repeat it 10 times.

17. Exercise No. 17 (Chest Backward Stretch)

Stand in a relaxed position with spine straight. Bend slowly backward as far as you can. Bend backward several inches only and keep your arms high then touch the buttocks with your hands. While bending backwards, inhale and retain breathe for a couple of seconds and then exhale. Repeat it 10 times.

18. Exercise No. 18 (Chest Forward Stretch)

Stand erect in a relaxed position with feet tight together. Raise your arms upwards with hands linked and bend forward slowly. The head should lower down and touch the knees. While lowering down the head downward the hands should be stretched upwards. Inhale breath while lowering downward and retain breath for a couple of seconds and exhale and come to the original position. Repeat it number of times.

ASANAS

“Yogasanas tone and shape the body. Yogasanas have a profound effect on improving circulation, especially to the extremities, Yogasanas help to keep the blood vessels elastic and reduce blood pressure. Yogasanas gently press on the body glands and organs, resulting in positive effects for the digestion, endocrine and reproductive systems.”

—Hatha Yoga Pradipka—

Asana is the third step in the ladder of Ashtang Yoga. The term ‘Asana’ means seat but in Yoga it is used in a comprehensive manner. It connotes a larger variety of different postures which aim at integral living including

the whole man—material mental, ethical. The ultimate aim of these postures is the attainment of wholesome health and inner happiness. Patanjali the great sage has defined Asana as "Sthiram, sukham Asanam" (that position which is comfortable and steady). He has reduced the number of Asanas from 84000 (believed to have been demonstrated by Lord Shiva) to 84. There is something in these postures for everybody. Patanjali states in 'Yog sutra', "It is for children, adults and the aged, for the well and the ill, for the poor and the rich."

Various asanas aim at cultivating poise and balance which, whether in sitting, standing or walking will call for the minimum of muscular effort. Different Asanas have different effect on the organs of the body. Asana means a posture in which one can remain calm and comfortable, physically and mentally for a certain time without effort. Yogasanas are not merely gymnastic or physical exercises. Because gymnastic or physical exercises have only physical effect on muscles and bones. While as Yogasanas are effective and useful for both internal and external systems of body. Yogasanas can be done by all, young and old, men and women. Before doing Asanas the practitioner must keep in mind the following instructions:-

- (1) The place selected for doing Asanas should be neat, clean, calm and quiet, airy, free from flies, ants, mosquitoes, bugs and smoky air.
- (2) Asanas should be done early morning at 5 AM in summer and 6 AM in winter. According to Hindu scriptures, this time is called Brahmuhurat
- (3) While doing Asanas air should be inhaled and exhaled through the nose, except in Simhasana in which air is inhaled through mouth.
- (4) Before doing Asanas bladder and intestines should be empty.

- (5) One should not do any Asana except Vajrasana after taking food.
- (6) Asanas should be done after Pranayama and Shavasana should be done last of all.
- (7) Concentration is of utmost importance in Asanas. The practitioner's attention and concentration should be done on that particular organ or part of the body which is affected by a particular Asana.
- (8) Beginners may find it difficult to perform all Asanas due to their rigid bones and stiff muscles. But by constant practice their muscles and bones will become supple and the body flexible.
- (9) Relaxation during and after Asanas is very essential.
- (10) A practitioner of Yoga should pay proper attention to food. He should take sattvic diet or Yogic diet which is simple vegetarian diet and which gives energy, vitality and vigour.
- (11) All the Asanas should not be done at the start. Asanas should be done according to one's capacity and the duration of each Asana should be increased gradually.
- (12) For doing Asanas it is better to wear minimum loose, light and comfortable clothes according to season. Ornaments, wrist watch, necklace, rings, spectacles should be removed before doing Asanas.
- (13) The sequence of Asanas must be maintained. The sequence should be such that a particular Asana is followed by a counterpose.
- (14) Asanas should be practised in correct, slow and smooth manner. Asanas should be done in an open area. If we want to do Asanas in a room that room should be airy well-ventilated.

Benefits of Asanas

- (1) Great are the benefit of Asanas. Regular practice of Asanas is highly beneficial for the purification of veins and nerves and promotion of sound mind and sound body.
- (2) Asanas help in mental, physical, and spiritual development. There is no age or sex bar in doing Asanas. The regular practice of Asanas improves the main systems—namely digestive system, circulatory system, nervous system, and respiratory system.
- (3) Asanas make the body supple and flexible and are able to adjust themselves to changes of environment.
- (4). The Regular practice of Asanas increases the power of concentration equilibrium and vitality.
- (5) The waste matter accumulated in our body is eliminated by Asanas. As the age of a person increases, several organs of the body are weakened or even damaged. The consequent accumulation of chalk-like cholestrol or other impuritites in the muscles, vein and arteries harden thus making the circulation of blood slow and irregular. Some diseases are therefore caused by improper elimination of waste matter, such as urine and stool from the body. Asanas increase the resistance power of the body and keep it free from diseases.
- (6) Asanas rejuvenate tone up the different glands of the body. These healthy glands produce required secretions which help in proper growth of the body.
- (7) Asanas in themselves may not give spiritual realization but they are a ladder of the spiritual path. Asanas help to awaken the psychic faculties. Asanas are considered a form of psychic

purification. People doing mental or manual work can relieve their tension and strains by Asanas particularly relaxing postures.

- (8) Modern man takes sleeping pills and drugs to get peace and rest. But he gets lot of physical mental and emotional tension. By doing Asanas, modern man will be able to free himself from ailments which appear due to unnatural or with wrong way of living. Our youngmen and women have turned to the use of drugs, LSD, charas, heroin, hashish, and other tranquillisers. Yoga in totality including Asanas is the only lasting remedy for those people to find a new meaning of life.
- (9) Some Yoga teachers receive a number of complaints from women trying to save unhappy marriages. Sometimes these women seek help in developing a more philosophical outlook more strength to carry on, others hope to improve their physical appearance and attractions. Others want to become more interesting persons and thus gain their husbands respect. Some are groping for a kind of spiritual independence, others do not know what they are searching for, they are desperate. Those who are really anxious to help themselves usually find, in varying degrees, the support they need. It manifests in different ways—an increased patience and endurance in greater tolerance and compassion. Physical problems are usually less complex. Some result from lowered health and vitality, others from ignorance of sex anatomy or inability to make needed adjustment of coitus.

(a) By raising the standad of general health, thus providing the maximum favourable conditions, and in certain cases providing a means of correcting disorders that prevent enjoyment of coitus.

(b) By increasing vital energy which leads to greater joy in living more powerful libido, increased potency and ability to prolong coitus.

(c) By relaxing nervous tension, thus reducing anxiety which could contribute to impotence premature ejaculation and other inhibitions.

(d) By increasing suppleness in joints and pelvis leading together efficiency and resting tone to vaginal zone which has grown slack through childbirth and other causes. Before coitus can take place there must be what is known as tumescence. Though this is common to both sexes, it is more obvious and more imperative in the male. In the male, tumescence is the process by which the spongy erectile tissues in the penis become filled with blood the glands secrete lubricating and protecting fluids, the penis hardens and is raised by its erector muscles. It is usually set in motion by impulses from the brain transmitted through the spinal cord and sexual centre in the spine, but it also works in reverse i.e. local stimulation of sex organs sends impulses to the brain which register sensations of pleasure. Impulses going out to the sex centre from the brain are first aroused there by stimuli received through the senses—sight, touch, smell, taste, sound etc. disorders or weaknesses in one set of bodily functions therefore could react unfavourably on sexual activity. In the female, tumescence is basically the same. The sexual organs become swollen with blood, the clitoris erects. There is even a form of ejaculation, though not to the same extent as in the male. This is the female seed 'Rajas' lotus dust referred to in Yoga and Tantric texts. The time taken for this process varies according to individuals and circumstance. If a man is deeply in love, or the partners are mutually attracted it will be shorter than when there

is little attraction or interest, but wild animals, for whom prolonged and spectacular displays must sometimes precede intercourse. Courtship is a more poetic name for tumescence which is not, as is sometimes imagined merely a sentimental and unnecessary trimming. It is or should be an integral preliminary, if intercourse is to be satisfactory for both partners, and should, in an abbreviated form, precede each act of union. The male bird or animal, dancing, parading before the female is not only working himself up for coitus but is also attracting, exciting her to a similar state of response. In humans the principle is the same. Much is written and said about the fact that women take longer than men to arouse sexually, that frequently the male partner has reached orgasm and ejaculation before the female has had time to respond and that this is a common cause of unhappiness and marital failure. Ability to make the woman physically emotionally, psychologically receptive would save much of this unhappiness. The prolongation of the preliminary courtship before the act is necessary on the physical side, in order to ensure tumescence. It is necessary on the psychic side because without it, the ideal element of love cannot well be developed". Though tumescence is normally a fairly rapid process it may be subject to difficulties. Apart from boredom, lack of attraction in the partner or other psychological reasons it could be inhibited by poor health, lack of vitality hormones deficiency, nervous tension and lack of confidence.

Yogasanas for the pelvic area will give greater flexibility and ease of movement without hardening muscles. These movements also promote healthy blood circulation in the reproductive organs and tone up the sex glands. Slack vaginal muscles could be a cause of unsatisfactory coitus. If they have grown lax from

childbirth, lazy habits, obesity, there may be considerable reduction in sensation for both partners. The muscles, however could be toned up, and trained to compensate for any stretching, also to overcome problems caused by disparity in the size of the sex organs.

In Yoga techniques known as Ashwini Mudra, gives control of the anal muscles in conjunction with inhalation and exhalation breathing exercises. Women could learn to adapt this practice to the vaginal levator muscles, so that continual contraction and relaxing may be done in quick succession. This is an important pre-natal exercise and also helps restore tone and elasticity after delivery. In coitus, the ability to produce this sensation on the male organ greatly intensifies enjoyment and is also a positive contribution in overcoming such conditions as weak potency. It is also recommended for prolonging coitus.

Impotence is said to be increasing in civilized society and may occur in otherwise healthy men. It may be psychic (Mental) endocrinal or organic in origin. Psychic impotence could be caused by inhibitions, guilt, wrong sex education and training in youth, endocrinal impotence by hormonal deficiency, and organic impotence by disorders of brain and spinal cord, central nervous system, prostate, urethra, atrophy of the testicles, kidney disease—diabetes, chronic hypertension or venereal disease in which either the penis is affected as in syphilis—the central nervous system since endocrinal impotence means deficiency in hormones not only from the testicles but also Thyroid, Adrenal and anterior Pituitary. It could be favourably affected by toning up these glands with the help of Asanas and Pranayama exercises. When organic impotence comes from actual disease, there must be medical treatment, but such causes as high blood pressure and

many nervous diseases respond to Pranayama and Asana exercises, and tension—relaxation exercises. Asanas and Pranayama bring greater vitality and optimism and discourage tendencies to brood and worry about the condition.

Premature ejaculation is often psychic in origin. It could also be aggravated by constipation haemorrhoids, congestion without gratification, resulting in local irritation and inflammation. Ability to relax nervous tension is very important in any cure and a calmer more optimistic attitude helps reduce the fear of failure that so often prolongs the complaint. To overcome local contributing disorders, Bhujangasana, Pawan muktasana will correct constipation, and all inverted postures and Shirshasana will cure haemorrhoids. Apart from psychological causes—such as guilt, said to occur in men particularly, coital pain in male and female could also come from weak back muscles, poor spinal health and chronic constipation. The Asanas namely Surya Namaskar, Padmasana, Bhujangasana, Shirshasana, Sarvangasana will limber up and strengthen the sex glands and muscles, in woman pain after intercourse may also stem from displacement of the uterus, inflammation of the vagina, urethra, uterus or ovaries or from ovarian cysts. Suspected cysts, swellings, discharges or inflammation must be referred to a doctor but even here some relief could be obtained through muscular and nervous relaxation and correct breathing and Pranayama exercises.

Another problem facing women is sterility. The causes of sterility are not yet fully known. At one time believed to be peculiar to women, it is now recognized as occurring in both sexes. It may be a temporary state caused by ill health but there may be some physical

obstruction preventing spermatozoa reaching the ovum there may be a retroversion of the uterus hormonal defects a too-acid vagina which kills the sperm. The man's semen may contain no spermatozoa, the woman may not be producing egg cells or may have diseased or under developed ovaries. The man and woman may be incompatible in the context of fertilization. Yoga's contribution to correcting sterility comes through regulation of endocrinal glands, particularly ovaries and testicles correction of menstrual disorders, strengthening the body and improving circulation and general health. Relaxation or nervous tension is essential and the ability to cease worrying. For such problems Asanas namely Bhujangasana, Halasana, Sarvangasana, Shirshasana, Matsyasana are highly beneficial.

It has long been believed that when sex fades in marriage, it is the woman who has lost interest. At one time she was thought to have no sex needs at all, until comparatively recently a middle aged woman was expected to be more concerned with children or grand children than with sex. If it is suggested that it is the man who is responsible for any decrease in marital intercourse, that men age more quickly than women.

A Word of Caution

Persons suffering from Heart diseases, nervous diseases, hypertension, stomach disorders, fractured bones should not do the following Asanas. Moreover, women during the period of menstruation and pregnancy (after the third month) should not do any Asana or Pranayama exercises:-

Shirshasan, Garbhasana, Hanumanasana, Halasana, Chakrasana, Dhanurasan, Mayurasana and Kukutasana and Sarvangasana.

ASANAS**(1) Surya Namaskar**

Surya Namaskar is a complete set of exercises which can be practised in the early morning hours facing the sun. In the ancient days Surya Namaskar was performed daily singly or in a group by yogis at dawn. Surya Namaskar is a combination of Asana, breathing and concentration. It has twelve variations which involve the entire muscular structure. Surya Namaskar acts effectively on the entire organism.

Position 1. (Namaskarasana)



Fig. 8 1(A): Namaskar asana

Technique

Stand erect with feet together. Place the palms together in front of the chest. Breathe slowly and normally and relax the whole body. It prepares the practitioner physically and mentally for the exercises which follow.

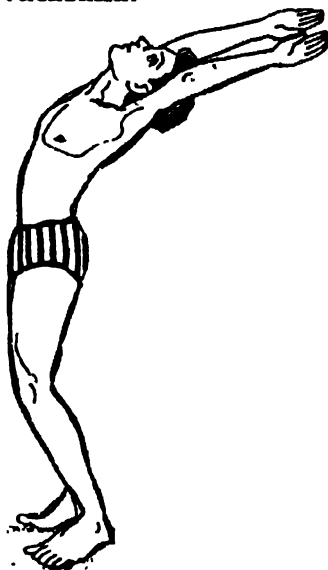
Position 2. (Parvatasana)

Fig. 8.1(B): Parvatasana

Stand erect and keep your feet apart. Close your mouth and raise both the arms above to head and upper trunk stretch your arms slightly backward. Inhale while raising the arms and exhale while bringing the arms to the original position.

Position 3. (Hastapadasana)

In the standing pose, keep your feet together close your mouth and inhale long breath and bend forward



Fig. 8.1(C): Hastapadasana

while exhaling. Make an attempt to touch the feet with your palms.

Position 4 (Ekapada prasaran asana)

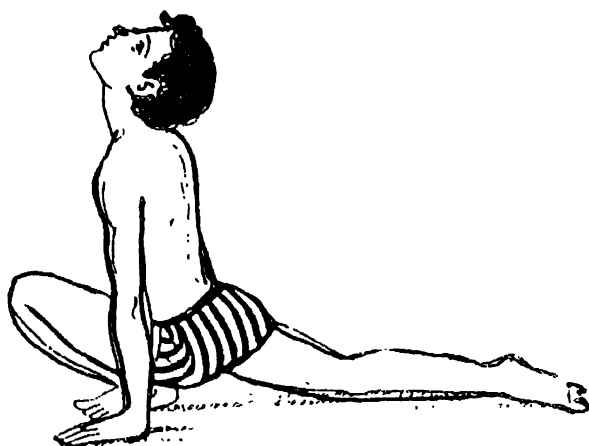


Fig. 8.1(D): Ekapadaprasaranāsana

Sit on your feet and place the palms on the floor, supporting your weight on them and extend the right leg fully backward. Bend the neck also backwards. In this position, the left knee will be placed centrally between the two arms. On completion of this movement exhale slowly and rhythmically.

Position 5 (Bhoodharasna)

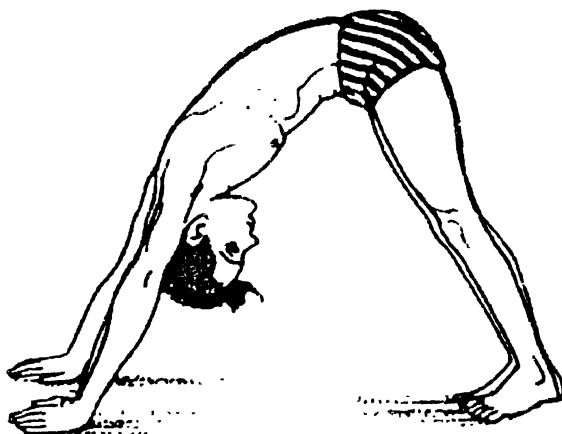


Fig 8.1(E). Bhooḍharāsana

Sit on your feet and bend your body at the waist and the weight of the body should be supported by the palms and the toes. The position of the head should be inside the arms downwards.

Position 6 (Ashtaṅgparanipatasana)

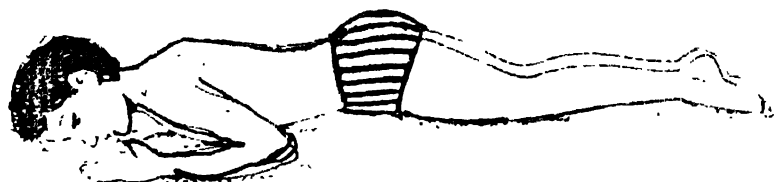


Fig. 8.1(F): Aṣṭaṅgparanipatasana

Stand erect and lower down the torso and the exhale breath. The knees, the chest and the face should rest on the floor. The abdomen should not touch the floor. Inhale breath and then retain breath for a couple of seconds and exhale slowly and rhythmically. Repeat it 10 times.

Position 7 (Bhujangāsana)

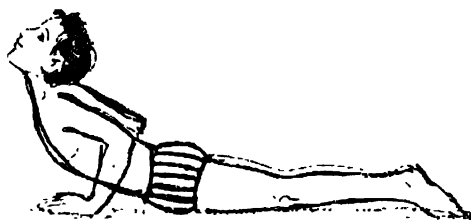


Fig. 8.1(G): Bhujangāsana

Lie down bend the torso and the neck backward. Inhale while raising the head and retain breath for a couple of seconds and exhale breath while coming to the original position. Repeat it 10 times, and relax for a couple of minutes.

Position 8 (Bhooḍharasana)



Fig. 8.1(H): Bhooḍharasana

Stand erect and have long and deep breaths. Lie down and raise the torso and exhale breath. Now bend the body at the pelvic joints so that the buttocks are raised higher than other parts of the body (as in position 5) and retain breath for a couple of seconds while raising the torso and exhale breath while coming to the original position.

Position 9 (Ekdaprasaransana)

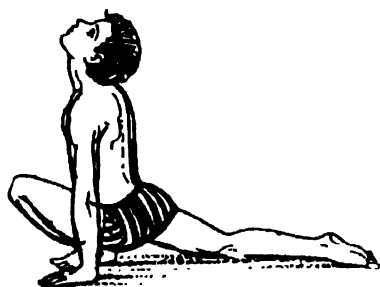


Fig. 8.1(I): Ekdaprasaranasana

Sit on your feet and inhale deeply and bring the right leg gradually forward till the right foot rests near the right palm. Keep the left knee touching the floor and the neck bent backwards (in a manner analogous to position 4). Retain breath for a couple of seconds while forwarding the right leg forward and exhale breath while coming to the original position. Repeat it 10 times and relax for a couple of seconds.

Position 10 (Hastapadasana)

Stand erect with feet together and bring the left leg also forward till the left foot rests near the right foot. Straighten the legs at the knees and make an effort to touch the big toes with the hands. Inhale while moving the head down and retain breath for a couple of seconds and exhale while coming to the original position. Repeat it 10 times and relax for a couple of minutes.



Fig. 8.1(J): Hastapadasana

Position 11 (Parvatasana)

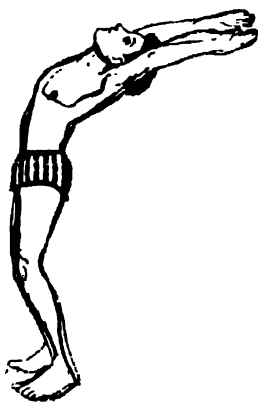


Fig. 8.1(K): Parvatasana

Stand erect with feet apart. Inhale deeply and raise the arms and bend the torso and the neck backwards. Retain breath for a couple of seconds in this posture and exhale breath while coming to the original position. Repeat it 10 times and relax for a couple of seconds.

Position 12. (Dakshasana)

Stand erect with feet together. Inhale and exhale air. Bring the arms down touching the thighs. Keep the body

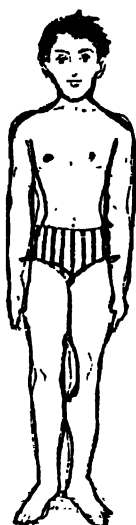


Fig. 8.1(L): Dakshāsana

in a relaxed position and do deep breathing. Inhale air and retain air for a couple of seconds and exhale slowly and rhythmically inhalation. Retention and exhalation should be done 10 times and then relax for a couple of minutes.

Asana No. 2: Siddhasana

Techinque



Fig. 8.2: Siddhasana

Sit on the folded rugged or folded blanket on the floor, bend the left leg and pull the foot in against the groin. Now bend the right leg and bring the foot across and insert its outer edge in the crevice between the calf and thigh of the left leg. The right heel should press against the pubic bone and both the knees should firmly touch the floor. Keep the palms of the right and left hands on the right and left knees. Place the heels near the groin carefully lest the pubic bone should be hurt.

Asana No. 3: Simhasana

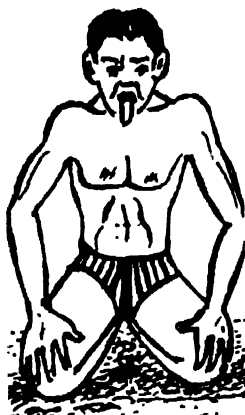


Fig. 8.3: Simhasana

Techinque

Sit on the folded blanket with legs stretched straight in front. Raise the seat, bend the right knee and place the right foot under the left buttock. Similarly bend the left knee and place it under the right buttock. Stretch the arms straight and keep them rigid. Gaze at the centre of the eye brow or at the tip of the nose. Remain in this pose for a couple of seconds.

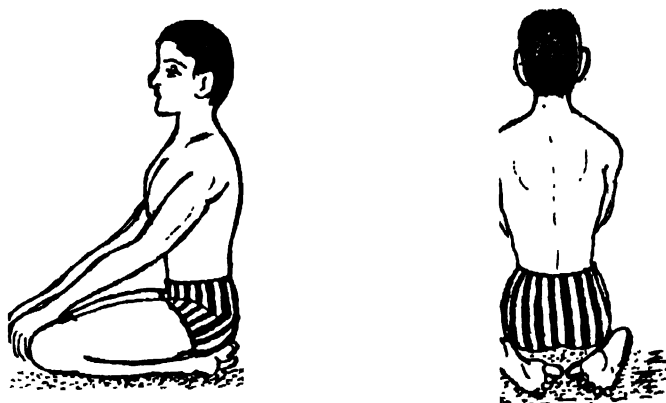
Asana No. 4: Vajrasana

Fig. 8.4: Vajrasana

Techinque

Sit on the folded blanket with the feet stretched backward and big toes crossed. The knees should be kept together but heels apart. Lower the buttocks inside the feet. The heels should touch the sides of the hip. Place the hands on the knees, palms downward.

Asana No. 5: Pawan Muktasana

Fig. 8.5: Ek Pad Pawan Muktasana

Technique

Spread a folded blanket on the floor and lie down straight facing the sky. Inhale and raise both legs up, bend them from the knees, and hold them with both the hands and bring them close to the chest. Then raise the head up so that the face remains between the two knees. Exhale and breathe slowly. After inhalation and exhalation. Hold the breath and bring head, legs and hands to original position.

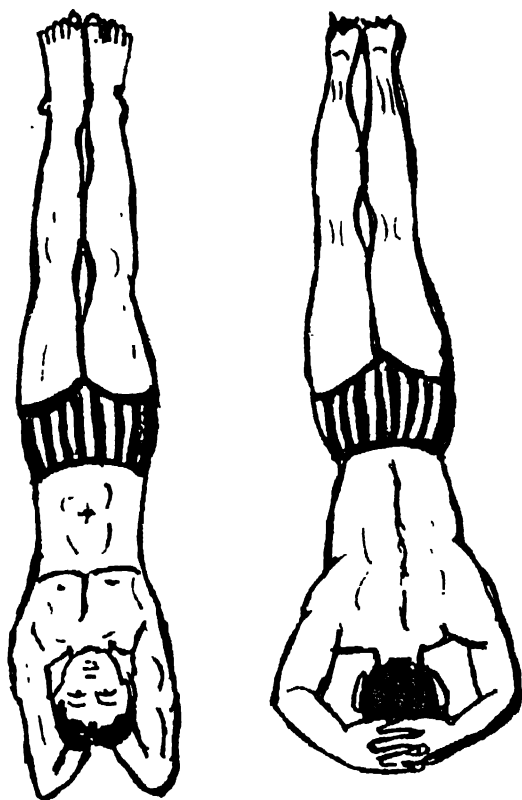
Asana No. 6: Sheershasana

Fig. 8.6: Sheershasana

Techinque

On folded blanket place a folded towel, adopt Vajrasana pose. This Asana is performed with the help of the hands and arms. Slowly move the legs towards the trunk and allow the knees to bend so that the back is upright and the thighs press against the abdomen and lower period of time. Always breathe through the nose and never through the mouth. This will harmonise the blood circulation..

Asana No. 7: Ushtrasana



Fig. 8.7: Ushtraasana

Techinque

Sit in Vajrasana pose with your feet and knees slightly apart. Stand on your knees and stretch the arms to the sides. Lean backward and put the hands on the heels. Stretch the neck backward and let the weight of the body rest on arms. Bend back as far possible and push strongly.

Remain in this pose for a couple of seconds and breathe slowly without any strain.

Asana No. 8: Mayurasana

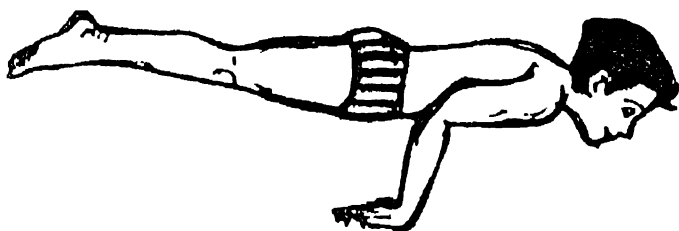


Fig. 8.8: Mayurasana

Technique

On a folded blanket, kneel down, join the two arms together and rest the hands on the floor, palms down with fingers pointing towards the toes. Keep the hands firm. Bring down the abdomen slowly against the joined elbows. Support your body on your elbows. Then stretch your legs. Inhale and raise the legs together from the floor. Exhale while raising the body off the floor and inhale while lowering the body.

Asana No. 9: Salabhasana

Technique

On a folded blanket on the floor, lie prone on the stomach and chest. The forehead and the chin must touch the floor and keep arms alongside the body and legs extended together. Take a deep breath. Clench the fists tightly and raise the legs together as high as possible without bending them. Exhale breath and bring the legs slowly to the floor. Remain in this pose for a couple of seconds.

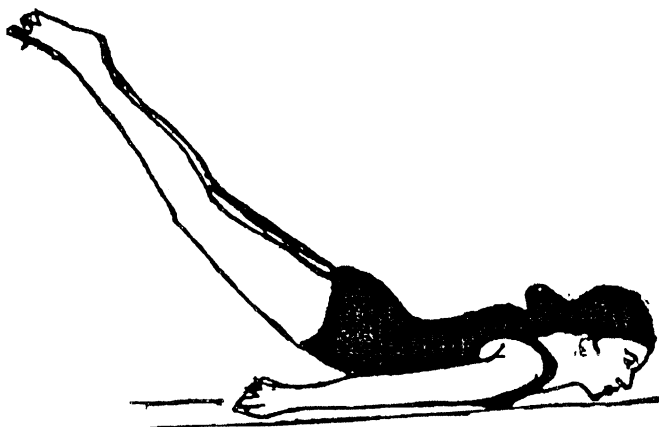


Fig. 8.9: Salabhasana

Asana No. 10: Bhujangasana

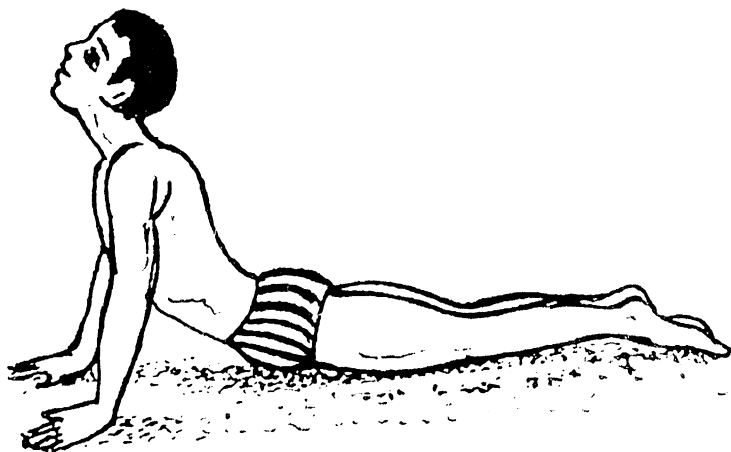


Fig. 8.10: Bhujangasana

Technique

Lie flat on the stomach with legs straight and the feet extended. Place the hands, palms down under the shoulders. Slowly raise the body the navel until the arms are straight but the stomach and the legs must touch the floor. Bend the head back gazing diagonally upwards. Remain in this pose for a couple of seconds.

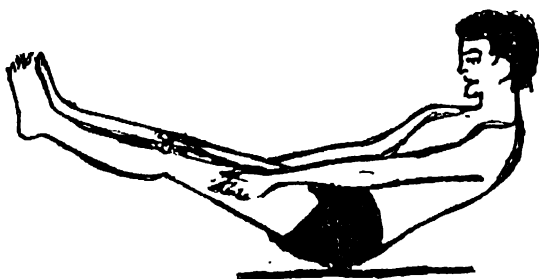
Asana No. 11: Naukasana

Fig. 8.11: Naukasana

Technique

Lie flat on the floor facing the sky with hands clasped at the back. Raise your feet, head and the chest up as to form a curve on the floor. With your body rest on abdomen. In this pose, the body looks like a boat. Breathe slowly and rhythmically. Remain in this pose for a couple of minutes.

Asana No. 12: Sarvangasana**Technique**

Spread a blanket on the floor and lie flat on your back. Then slowly raise the legs up lifting the trunk and hips vertically. Remain in this pose for a few minutes and breathe slowly and deeply and concentrate on the Thyroid gland which is at the root of the neck. Come to the original position very slowly and relax.

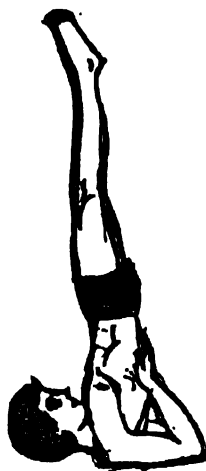


Fig. 8.12: Sarvangasana

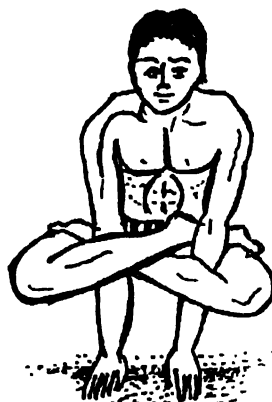
Asana No. 13: Kukutasana

Fig. 8.13: Kukutasana

Technique

On a folded blanket, adopt the pose of Padmasana and insert the arms between the calves and thighs. Place the palms of the hands on the floor with the fingers pointing forward. Remain in this final pose for as long as you can and breathe slowly without any strain. Repeat it number of times and then come to the original position and relax.

Asana No. 14: Gomukhasana

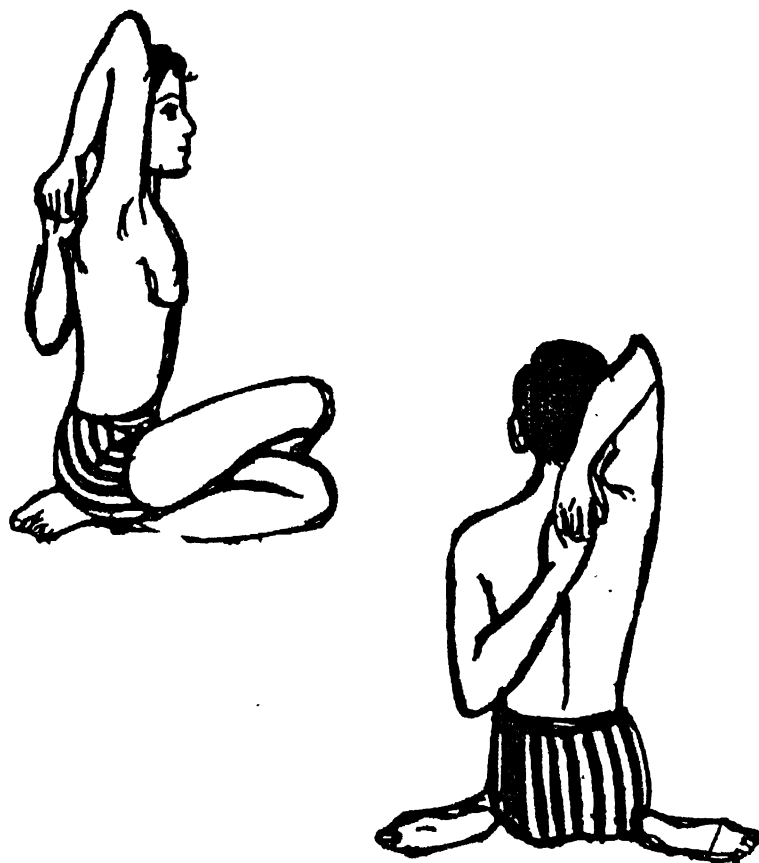


Fig. 8.14 : Gomukh Asana

Technique

Sit on a folded blanket on the heels, knees together and head, and spine straight. Bend the right arms, raise the elbow and lower the hand as far down the middle of the back without disturbing the upright posture. Unlock the hands and repeat the process in reverse manner. Return to the original position and relax.

Asana No. 15: Padmasana

Fig. 8.15: Padmasana

Technique

Sit on the folded blanket with your legs outstretched. Bend each leg and place each foot on the opposite thigh, soles turned upwards. Pull the foot as high as you can. Keep the palms of the right and left hand on the right and left knees, touching the thumb with tips of index fingers and gaze at the tip of the nose. Keep the head, neck and spinal column straight and erect and breathe slowly.

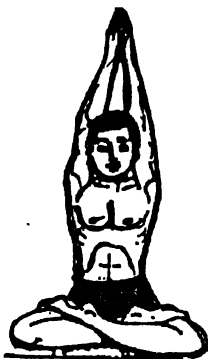
Asana No. 16: Parvatasana

Fig. 8.16 : Parvatasana

Technique

Sit on a folded blanket, in Sukhasana or Siddhasana. Raise your hands up slowly. While raising the inhale breath and retain breath as long as the hands are up. Lower down the hands slowly and exhale breathe, repeat it at last five times and relax.

Asana No. 17: Badha Padmasana

Fig. 8.17 : Baddha Padmasana

Technique

On a folded blanket, adopt the pose of Padmasana. Cross the arms behind the back and grip the toes of the right foot with right hand and the toes of the left foot with left hand. The chest should move forward, breathe slowly and freely. Remain in this pose for a couple of minutes. Come to the original position and relax.

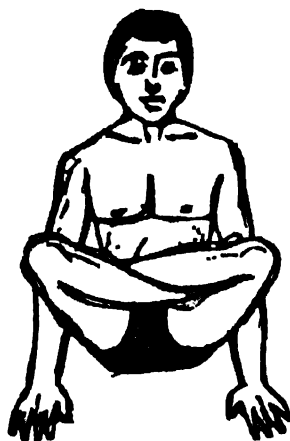
Asana No. 18: Utthita Padmasana**Techinque**

Fig. 8.18 : Utthita Padmasana

On a folded blanket, adopt Padmasna pose. Lie on the back and place the palms of the hands under buttocks and raise the trunk so that it is supported by the elbows. Then raise the head legs and trunk further off the floor so that the whole body rests on the buttocks and forearms. Remain in this pose for as much time as you feel convenient. Breathe in and out slowly. Come to the original position and relax.

Asana No. 19: Halasana**Techinque**

Spread a folded blanket on the floor and lie flat on the back with arms straight near the body, palms facing downward. Keeping the legs straight raise them slowly above the head, only stomach abdominal muscle should be used to raise the legs. Now interlock the fingers and stretch the arms. Remain in this pose for a couple of minutes. Return to the original position and relax.



Fig. 8.19 : Halasana

Asana No. 20: Dhanurasana

Technique

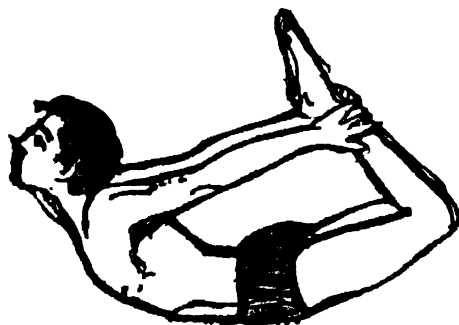


Fig. 8.20 : Dhanurasana

Lie flat on the stomach and chest fix the legs bringing the feet back towards the head. Raise the legs, head and upper part of the body. While arching the back take hold of your right ankle with your right hand and left ankle with left hand. Breathe slowly and normally. Remain in this pose for a couple of seconds. Return to the original position and relax.

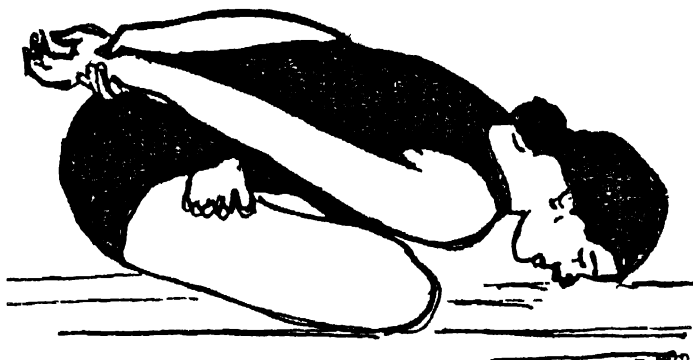
Asana No. 21: Yog Mudra**Techinque**

Fig. 8.21(a) : Yoga Mudra

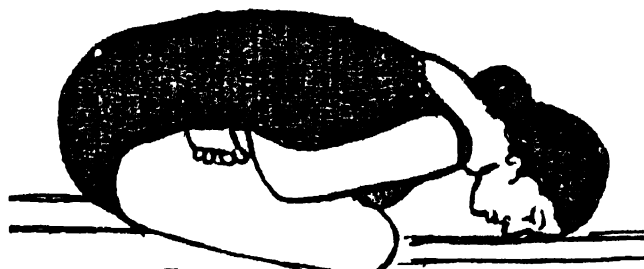


Fig. 8.21(b) : Yoga Mudra

Sit on folded blanket in Padmasana pose. Relax the whole body and close the eyes. Place the hand behind the back catching hold of the left wrist in the right hand and keeping the spinal column erect. Inhale and exhale slowly leaning forward touching the floor with forehead. Stay in this posture for as long as you can without any stress or strain. Focus your attention on the abdominal region. Then breathe in slowly and rhythmically. Sit upright and relax.

Asana No. 22: Padangusht Asana

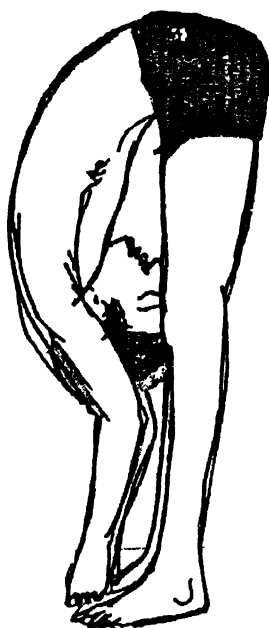


Fig. 8.22 : Padangusht

Techinque

On a folded blanket, sit on the feet and put the whole weight of the body on toes. Place the left toe in the centre of the anus and place the right foot over the thigh near the knee and maintain balance on the right toe. Place the hands on the sides of hips. Retain the breath as long as your can. Breathe slowly and rhythmically.

Asana No. 23: Vrikshasana

Techinque

Stand up right. Fix the right leg on the ankle. Fix the right foot on the left thigh. Bring the palms of the hands together a little above the head with the arms half bent. It will assist good balance to fix the gaze on a point level

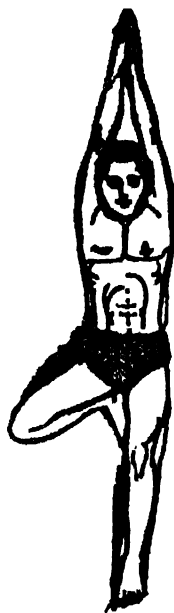


Fig. 8.23 · Vriksha Asana

with the eyes on the wall. Breathe freely and deeply. Stay in this pose at least for ten seconds.

Asana No. 24: Jetikasana



Fig. 8.24 : Jestikasana

Technique

Spread a blanket on the floor and adopt the pose of Advasana. Interlock the gingers and place the palms at

the back of the head. Breathe slowly, deeply and rhythmically.

Asana No. 25: Garudasana

Fig. 8.25 : Garudasana

Technique

On a folded blanket stand upright. Bend the left knees slightly and twist the right leg over the left leg so that the right in step is touched behind the left calf. Then repeat the pose balancing on the right leg and reversing the arms and the leg position. Come to the original position and relax.

Asana No. 26: Moola Bandha Asana**Technique**

Adopt a sitting position on a folded blanket. Stretch the legs forward and bend the knees bringing the feet



Fig. 8 26 . Mool Bandhsana

together at the perineum. Breathe slowly and comfortably. Raise the body on the heels so that the heels press the perineum.

Asana No. 27: Paschimottanasana

Technique

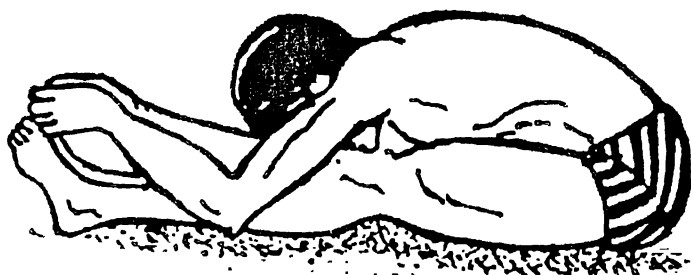


Fig. 8.27 : Paschimottanasana

Lie flat on the blanket and stretch the arms over the head and breathe in slowly and normally. Raise the arms head and trunk, exhale and bend them over the legs

without raising the knees. Catch hold of the toes with fingers, contracting the abdomen and gently pressing the head against the knees. The bending should be done very slowly. Return to the original position and relax.

Asana No. 28: Shavasana

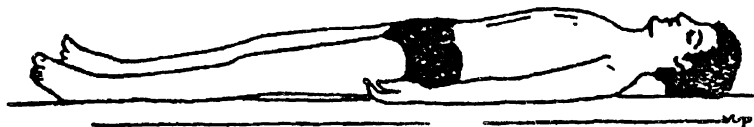


Fig. 8.28 : Shavasana

Technique

On a soft carpet or blanket or folded rug lie full length on back with arms away from the body with palms facing upward and feet slightly apart. Close the eyes and mouth and withdraw the consciousness by stages beginning with the feet, the ankles, the knees, the abdomen, the chest, the neck and the face. Finally keep the mind free. Simply lying on the floor, closing the eyes and breathing slowly does not mean Shavasana. The technique of this Asana must be followed carefully. Deep, slow and long breathing and retaining breath for a couple of seconds is very essential in Shavasana—an excellent Asana for complete relaxation.

9

Science of Breath

“Pranayama Yuktena sarvroga ashayobaveh
Ayuktabhyasa yogena sarva roga Samudbhva”

—Hatha Yoga Pradipka

"When Pranayama is practised with
principles, It cures all kinds of diseases.

When practised without them will cause
all kinds of diseases".

—Hatha Yoga Pradipka

In Yoga system the science of breath is called Pranayama. The word Pranayama consists of two words—Prana and Ayama. Prana implies life force of vital energy Ayama means control of the breath. Breath is the first expression of life. It is the primary function and all other functions of digestive system, circulatory system and nervous system are secondary. A great sage Gorakhnath traversed throughout India and observed that 90% of the people do not know how to breathe. Prana as the life force is invisibile. We can only feel its presence in the form of inspiration and expiration. The first action of Prana is expansion and contraction. That

is the first motion of life force. The aim of science of breath is to control Prana, and to gain mastery over the organic activities and the vital energy which keeps us alive. When Prana is controlled all other organic functions of the body are controlled. Prana exists in any kind of activity, physical mental or spiritual. Prana as life force is omnipresent. Prana is present in every tiny or big thing, in all animals creatures and birds, the cause of disease is the disturbance of this Prana in the physical body. That disturbance can be remedied by bringing harmony a kind of balance. By the practice of pranayama the mind possesses the power to supply prana to any deficient part of the body. The science of breath includes all the different systems. The roots of this science stretch back into the ancient past. Modern scientists are doing research on the healing powers of pranayama. The laws of the nature are uniform and universal. This has been emphasised in the Sankhya philosophy by saint Kapila and also by Patanjali. When Sir Isaac Newton saw from his window that an apple fell from the tree, he discovered the law of gravitation. He discovered that all the apples that ever grow on the tree would fall on the ground. This isolated incident was made universal. So anything that is offered to us an isolated incident should not be accepted as an exception but we should regard it as a law that is universal. The Vedanta also lays emphasis on the religious experience which is based upon science, philosophy and logic. So if any individual possesses healing power we should not consider it as an exception. We can also have the same healing power under the same conditions. The science of breath is based on rationalism truth and logic. Therefore we have to learn how to control the energy that is in our own body. We should know how to control our breath because breath is the 'Outward manifestation' of Prana. We should learn slowly and gradually, the tremendous power of life force of the universe which is manifested through

our individual body. We should study our own system and we will understand the laws of nature because whatever is in our body is universal we must start from the physical body and march on gradually. We must study the action of our own mind, concentrate our own mind. By pranayama we will be able to eliminate all the impurities of our system. We will draw in more oxygen. That will be a physiological side of the process. The other side is the mental side or the relation of mind or breath. When our mind is concentrated our breath becomes slow and deep. When our mind is disturbed agitated, worried we should have deep and longer breaths that will bring calmness to mind. Prana is force, magnetism and electricity. It is due to prana that digestion excretion and circulation take place the prana in the air performs a number of function in the human body. Each of these has a specific name and aim:-

(1) Prana — It circulates in the area around the heart and controls breathing.

(2) Apana — It circulates in the lower regions of the abdomen and controls excretory functions (urine and feces).

(3) Udana — It remains in the thoracic cage and controls the absorption of air and food.

(4) Vyana — It spreads throughout the body and distributes the energy from food and breath.

(5) Naga — It relieves abdominal pressure by provoking excretion.

(6) Kurma — It controls the eyelids to prevent foreign bodies from entering and dazzling light from harming the eyes.

(7) Krkala — It prevents certain substances from rising into the nasal activities or descending into the throat causing sneezing and coughing.

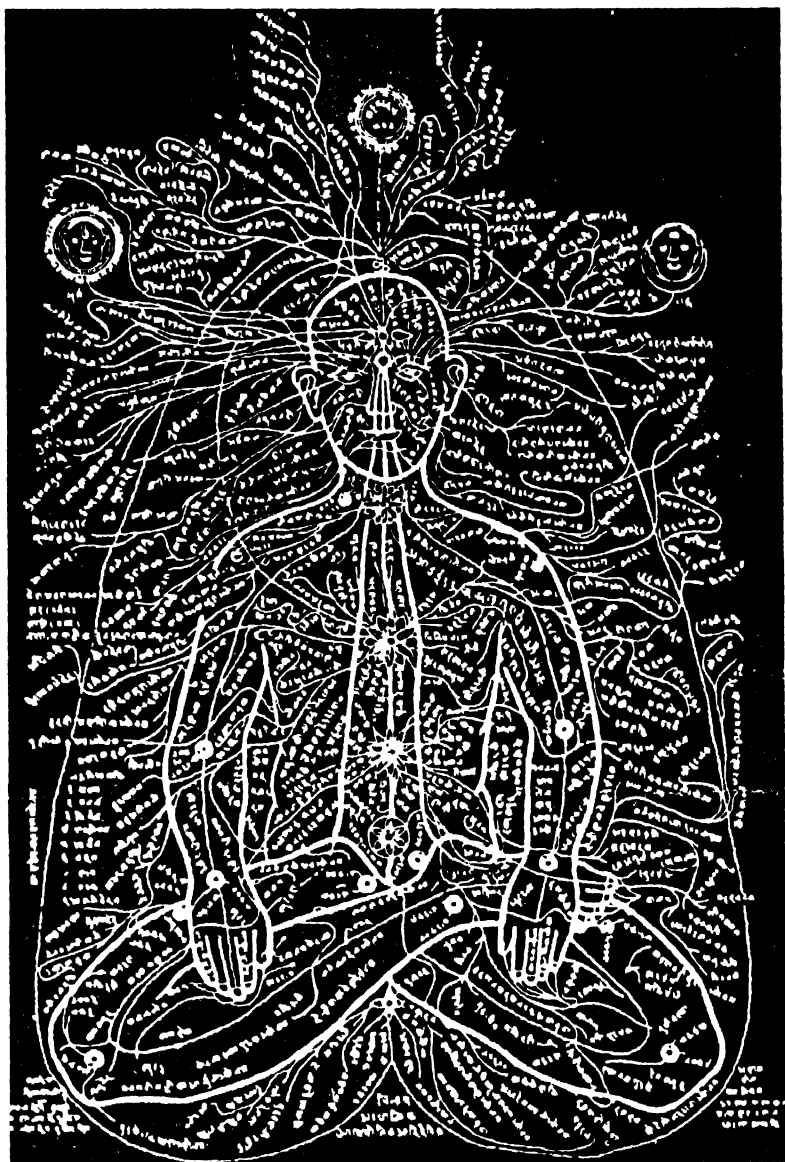


Fig. 9.1 : Pranayama Kosha

(8) Devdutta :- It ensures the absorption of extra oxygen into a tired body and causes yawning.

(9) Dhananjaya — It remains in the body even after death and sometimes causes the corpse to swell.

The technique of the science of breath or pranayama is an attempt to stop all the activities of nerve-currents and their leakage. A man who takes to pranayama in right earnest must observe purity in thought, word and deed. A Sadhak must first purify his body Nadis (nerves) and mind. Without proper supply of nerve energy the different Indriyas (senses) the digestive organs and the mind do not function properly and the result is disease and premature decay. Keeping the Nadis in normal condition is like keeping electric wires in sound condition for the proper flow of electric currents. Purity of mind consists in making it free from all sorts of desires thoughts and emotions. Desires both gross and sexual are impurities of the mind. The purity can be attained by (a) strict control over one's food and drink, (b) strict adherence to Yama and Niyama (the code of conduct), (c) self control over senses, (d) availability of clean environment. Breathing takes place as a result of the vibration of nerve currents in the lungs. The nerves get their energy from the prana. By regulating breathing the palpitation of the heart and the movements of the lungs can be regulated and make the nerve currents function normally. The science of breath or Pranayama can be dealt with under three heads.

- (1) Pranayama as a physical and mental exercise.
- (2) Pranayama as a purifier of body Nadis and mind.
- (3) Pranayama as a healer of diseases.

Pranayama can be divided into two classes *i.e.*, the lower and the higher, the former being meant for physical and mental health and the other for higher spiritual attainments. Breathing is high breathing, middle way breathing and low breathing. In high breathing the upper part of the chest, the lungs and the lower part of the lungs



Fig. 9.2 : Meditation Postures

are moved. In this kind of breathing the minimum amount of air enters the lungs with the maximum of effort. The middle way breathing is better than high breathing. Normally people in normal health breathe in this way. The low breathing is the best and most efficacious way. In this kind of breathing, the movements of the diaphragm play a very important part and air rushes in to fill the lower and middle parts of the lungs. But during the practice of pranayama. All the three kinds of breathing are involved pranayama is a scientific, mental and physical exercise. In this exercise, the heart lungs, digestive organs like stomach liver and the nervous and endocrine system. Like the brain, the spinal cord spine nerves get the massage and the rejuvenating exercise. The process of Pranayama involves Purka (Inhalation), Kumbhaka (retention) and Rechaka (exhalation). One who practises pranayama regularly and punctually enjoys good health, appetite, vitality, glowing face, sparkling eyes, sharp memory and concentration of the mind. Regular and systematic practice of pranayama removes many of the chronic diseases and brings purity of the body. Pranayama destroys all sins and develops the working and capacity of the lungs the heart, the liver and other important organs. It also purifies blood and increases its supply and circulation to the different parts of the body. All the nerves and tissues get proper supply of blood and oxygen for the different functions of the body if one carries the Asanas, Mudras and Pranayama regularly and correctly one is sure to find that they act as curatives of and preventives for various kind of mental and physical ailments.

As an indication of good physical and mental health, one should look forward to the following symptoms:-

(1) Desires and thoughts will decrease. (2) Feelings of contentment will prevail. (3) Urine and faeces will diminish in quantity. (4) The mind will remain calm and

peaceful. (5) The senses will become light. (6) The intellect will turn sharp. (7) Memory will become sharp. (8) Bodily fat will be reduced. (9) The belly will no longer project. (10) The face will look serene. (11) The eyes will glow bright and lustrous. (12) The voice will become sweet.

Before doing Pranayama a Sadhak has to show adherence to the following rules :-

- (1) **Selection of place and time** :- The place selected for doing pranayama should be lonely, calm and peaceful place free from dust, dirt, ants, mosquitoes, flies, smoke, noise, and other disturbing factors. If the place of practice is a room it should be airy and well ventilated. During the hours of pranayama no incense should burn. The best time for doing pranayama is 5 AM in summer and 6 AM in winter. According to Hindu scriptures this time is called Brahmuhurta. This is the time when surroundings appear to be calm and quite.
- (2) The practitioner of pranayama should be careful about food. Unclean unbalanced, improperly cooked food should be avoided. One should take food that is simply vegetarian, nutritious and easily digested. In selecting food one must know its suitability according to one's physical build up and the climatic conditions. Moreover a Sadhak of pranayama should not take spicy, roasted, fried things. As regards food one should lay more emphasis on vegetables, fruits, salaad, milk, curd and cheese.
- (3) **Sexual life**:- Pranayama is not for him who indulges in reckless sexual enjoyments. Married people must lead a well regulated sexual life. In doing Asanas and Pranayama a well-regulated sexual life is a must. Sexual energy is the greatest

power of mind and body. Instead of wasting this power it should be checked, controlled and converted into great mental energy called 'Ojas Shakti'. Most of the ailments, diseases, miseries and sufferings of a being are due to reckless sexual enjoyment. A well-regulated sexual life can give peace, happiness and longevity.

- (4) The mouth, teeth, nose, tongue, throat, should be well-cleaned before doing pranayama exercises.
- (5) In doing pranayama the body should not shake and the Asana should be firm.
- (6) After doing pranayama exercises, the Sadhaka should take rest for 15 to 20 minutes in Shavasana.
- (7) Tight clothes should not be worn. The clothes should be loose while doing pranayama.
- (8) Women should not do any pranayama exercise during the menses period and after the third month of pregnancy.
- (9) One should not do any pranayama exercise during sickness or sorrows.
- (10) The period of retention of breath should be increased gradually. The retained breath for a longer period of time is fruitful for the cells and the nerves and the semen is converted into 'Ojas Shakti'.
- (11) Pranayama exercises should be done with a free mind, free from tension, stress, anger, fear and anxiety.
- (12) A Sadhak doing pranayama exercises must avoid too much sleep too much wakefulness and heavy physical work.

- (13) Pranayama exercises should be done after the purification of Nadis. Gheranda Rishi says, "Vayu cannot enter in the Nadis so long as they are full of impurities. How can then pranayama be accomplished".
- (14) Pranayama exercises, breathing should be done through nose and not through mouth.

Persons suffering from HIV/AIDS are required to do the following pranayama exercises. In the practice of each exercise nerves, heart and lungs are involved. Undue strain or improper technique may damage these important parts of the body so one should proceed slowly and steadily:-

Exercise No. 1 (Surya Bhedana)

Surya Bhedana means piercing the Pingla Nadi. The aim of this exercise is to rouse the Pingla Nadi. The Surya Bhedana stimulates that part of brain which contains the vital force.

Technique

Sit in Siddhasana or Padmasana. Close the eyes and the mouth. Close the left nostril with your right little finger. Slowly inhale air without making any sound and exhale air through the right nostril. Again inhale breath through the left nostril and retain breath for a couple of seconds pressing the chin against the chest (Jalandhar Bandha), increase the period of retention of breath gradually. Then exhale breath slowly through the right nostril.

Exercise No. 2 (Sukh Purvak)

This type of pranayama exercise contains most of the benefits of pranayama. It is extremely beneficial to the people suffering from cough and respiratory ailments and infectious diseases.

Technique

Sit in Padmasana or Siddhasana and close the right nostril with the right thumb. Inhale the left nostril, inhale as slowly and naturally as you can. Fill your lungs with air. Now close the left nostril with the ring finger of the right hand and exhale slowly through the right nostril. As soon as exhalation is complete, inhale full and then close off the right nostril with the right thumb and exhale through the left nostril. Begin inhaling again through the left nostril. Repeat this exercise 10 times.

Exercise No. 3 (Samveta Pranayama)

This exercise is practised as a warming up exercise performed for cleansing breath. It purifies the entire system and fills the body with energy and vitality. It also helps relaxation of mind and body.

Technique

Sit in Vajrasana or Siddhasana. Inhale air with both the nostrils simultaneously. Hold the breath for a few seconds and then exhale with both the nostrils. Both inhalation and exhalation should be done slowly and comfortably without any jerk or stress. This exercise should be repeated 8 to 10 times.

Exercise No. 4 (Sahita Pranayama)

This exercise should be done after Sukh Purvak and Samveta Pranayama. These three exercise are the basic exercises for advanced exercises. They tone up the nervous system and prepare the practitioner for higher practices. Sahita pranayama is an elementary exercise for harnessing the wondering mind. This exercise has also great effect on Psychic nerve channels. While doing this pranayama or any pranayama exercises breath should never be retained forcibly for a great length of time.

Technique

Sit in any comfortable Asana and inhale air with both nostrils as in Samveta Pranayama and retain breath as long as you feel comfortable. Then release the breath slowly with both the nostrils. This completes one round. Repeat this exercise 8 to 10 times.

Exercise No. 5 (Nadi Shodhan)

This type of Pranayama is of great importance. It should be practised under the supervision of an expert. This pranayama can cure many ailments. In this exercise during inhalation retention and exhalation recite spiritual mantras should also be practised. It charges the nadis with the power of mantra. This type of pranayama is called the best of pranayama. It removes the impurities of the body and the practitioner attains control over the nerves. It is extremely beneficial for lungs and infection.

Technique

Sit in any comfortable Asana and check which nostril is flowing more freely than the other. Suppose the left is free close the right nostril with your thumb and start inhaling through the left very slowly. Count 15 numbers, during inhalation. Close your nostrils with your thumb and ring finger and hold your breath inside till you have finished counting 30 open the right nostril and exhale the air slowly in 20 counts. Now again breathe through the right nostril in 10 counts, and retain your breath for 30 counts and exhale through the left nostril in 20 counts. These are three stages of Nadi Shodhan which should be gradually practised. The first stage is known as Kanishta Pranayama. The second stage is known as Madhyama Pranayama the third stage is known as Uttam Pranayama.

Exercise No. 6 (Aritak Pranayama)

This pranayama awakens the hidden energy within the body and helps awakenning Kundalini. It also brings 'Psychic awareness'. It is highly beneficial for doing meditation.

Technique

Sit in any Asana convenient to you and close your eyes and feel as if your breath is going up from Mooldhara chakra to Sahsrara. Now exhale and feel mentally that the breath is coming from Sahasara to Mooldhara while doing these exercises breathing should be deep and slow. With the help of breathing, pranas should travel up and down passing through the seven Chakras. This exercise may be repeated 8 times.

Exercise No. 7 (Ujjai Pranayama)

Ujjayi pranayama creates heat in the body. So it is more beneficial in cold season. It is very beneficial to persons who are very sensitive to cough, cold, influenza, bronchitis. It is also highly beneficial for persons suffering from diseases of nose, throat and ear. It also reduces blood pressure. Ujjai pranayama induces relaxation very quickly.

Technique

Sit in any comfortable Asana, close the eyes and the mouth. Inhale through both the nostrils in a slow and rhythmic manner. Retain the breath as long as you can without any force, jerk, stress or strain and exhale through the left nostril by closing the right nostril with your right thumb. Expand the chest when you inhale. During inhalation a peculiar sound is produced owing to the partial closing of glottis. Now instead of exhaling through the left nostril you can exhale slowly through both the nostrils.

Exercise No. 8 (Bhastrika Pranayama)

Bhastrika is a powerful pranayama exercise and should be practiced under the supervision of a teacher. In this exercise lungs get maximum exercise. The entire respiratory system is invigorated vitalised and purified. This exercise should not be practised by those who are suffering from some heart or lung ailments.

Technique

First Stage :- Chandrang Bhastrika, Sit in Siddhasana and Padmasana. Close the mouth and the eyes. Close the right nostril with the right thumb and inhale and exhale through the left nostril known as Ida or Chandra Nadi or the moon nerve with great emphasis. The whole process resembles the movement of a below of a blacksmith. The head or shoulder should not be moved only abdomen should be moved due to fast inhalation and exhalation. At the end breathe in and retain breath for 20 seconds. Then exhale very slowly.

Second stage:- Suryang, Bhastrika— The same process should be done now through the right nostril keeping the left nostril closed with the ring finger and followed by inside retention of breath for 20 seconds. Repeat this exercise 10 times.

Final stage:- Repeat the same process as above but use both the nostrils. Inhale and exhale rapidly. The last breath should be inhaled and retained for 20 seconds. Repeat this exercise 8 times.

Exercise No. 9 (Kapal Bhati)

In Sanskrit Kapal means head of the "Skull" and Bhati means bellowing. Although Kapal Bhati is not a pranayama in the technical sense, it is surely a breathing exercise and is included in the Pranayama exercises. Kapal Bhati stimulates the brain. It has soothing effect on the nerves. It cleanse the nasal passage, trachea. It

also increase supply of oxygen and improves blood circulation. This exercise should not be practised by those who are suffering from serious mental ailments.

Techniques

Sit any comfortable Asana, and inhale through both the nostrils and force your breath out in quick succession till the lungs, are empty. Emphasis should be laid on exhalation only. During forceful exhalation, draw the abdomen and the chest in with force so that air may be discarded in greater quantity. Begin slowly but increase this exercise 8 times.

Exercise No. 10 (Sheetali Pranayama)

The word "Sheetali" means cooling. By doing this pranayama exercise cooling effect is experienced throughout the body. Sheetali is a good blood purifier. It also controls high blood pressure. It also cures diseases of the throat and destroys gulma (chronic dyspepsia) and infection.

Technique

Sit in any comfortable Asana and protrude the tongue out of the mouth and curl it up like a tube. Inhale slowly through the mouth and through the tube of the tongue. Retain breath for a couple of seconds. Exhale through both nostrils. Repeat this exercise for 20 minutes.

Exercise No. 11 (Sheetkari Pranayama)

Sheetkari has the same benefits as sheetali Pranayama. This pranayama exercise enhances the beauty of practitioner and increases the vigour and vitality. It also removes hunger and indolence.

Technique

Sit in Padmasana or Sukhasana and fix your jaws and the teeth firmly clenching over each other. Open the lips

but do not open the mouth. Inhale quickly by sucking air into the mouth through teeth in a hissing manner. The teeth and tongue should not move. After complete inhalation exhale through the nose. Do not retain the breath at any time during this pranayama. Repeat this exercise 8 times.

Exercise No. 12 (Bhramari Pranayama)

In Sanskrit “Bharamari” means humming of the bees. In this exercise humming sound is produced. This pranayama is highly beneficial for nerves. It induces relaxation and gives relief in high blood pressure caused by stress or strain or tension.

Technique

Sit in Padmasana or Siddhasana and inhale deeply through the nostrils. Plug the ears with the forefingers. Exhale through both the nostrils producing a humming sound. Practise this 8 to 10 times. In this Pranayama exhalation should be of longer duration with unbroken humming sound.

Exercise No. 13 (Murecha Pranayama)

This pranayama is called Murcha (fainting) because an aspirant experiences a senseless state of mind, and remains in a sort of unconscious state and enjoys real bliss. In this pranayama carbon dioxide is increased within the lungs due to the long inner retention of breath. This pranayama is a powerful method of withdrawing sense awareness.

Technique

Sit in any comfortable Asana and inhale through both the nostrils. Lift the head up and bend it a little backward. Fix your eyes in between the eye brows. Retain breath as long as you can. Now exhale and slowly lower your head to the normal position. Repeat it 10 times.

Exercise No. 14 (Kewali Pranayama)

This pranayama is for the general toning up of the body. It is extremely useful for concentration and relaxation. It is a sort of spring board for the higher practised of spiritual practices. It also help in awakening ushma Chakra. It also removes infection, sexual disorders.

Technique

Sit in any comfortable Asana, and inhale and exhale very slowly through both the nostrils repeating the word 'HAM' during exhalation and 'SO' during inhalation in your mind. Breathing should be natural and slow. continue mental chanting 'HAM' and 'SO' corresponding with the breath. Repeat this exercise 10 times.

Exercise No. 15 (Chaturtha Pranayama)

This pranayama is simple and automatic which comes due to relaxation. The breath becomes subtle and fine if practised for longer periods.

Technique

Sit in Vajarasana or Siddhasana. Take breath by both the nostrils and expell it slowly by both the nostrils in an equal frequency. Breathe in chanting 'OM'. Repeat it 8 to 20 times and then relax for some time.

We have been observing closely 20 Sadhaks in Yoga Mission International. In their self-assessment report they have expressed feelings of bliss and relief after doing pranayama exercises regularly for 15 days. Besides EEG, studies during pranayama revealed their alpha waves as long as they did exercises. Those Sadhaks sufferings from high blood pressure have reported lot of relief after doing pranayama.

10

The Psychic Prana

Man thou art thy secret alone
Who can ope thy gate but thee?
And none to enter in but thee.

—Swami Shivananada

'The Prasana Upanishad' describes the superiority of the Prana, to all other senses including the 'Manas', it is said the whole universe remains under the control of the Prana. This Upanishad lays emphasis on the practical significance of Prana which occupies a much higher place in Yoga. The Yogis realise the bright self full of light within their own body when all their impurities of mind are removed. In the Brithadakamyaka or leaving his home his two wives (Katyayani Maitrayani). He called Maitratam to divide the property here Maitryani asked a question whether there was any hope for the attainment of immortality through the property, were full of wealth still he could not attain immortality, Then Maitrayam said what she would do with that property when she could not get immortality after that Yajonvalka explained in detail that everything is loved by all human beings for the love of the self and not for the love of the things or beings. Therefore that self or atman is to be seen, studied and thought about.

Smritis have a great place in Indian culture. There are more than twenty Smritis but Manusmriti occupies an important place among them. Manusmriti says, "with the Pranayama the physical organism is purified and by the recitation of the Divine name mind is purified". The first ten Yamas according to Manusmriti are non-cruelty, forgiveness, Truth, non-violence, self control, Non attachment, meditation, tranquility, sweetness, and simplicity. In the concluding chapter of the 'Manusmriti' one should realise that the whole universe exists in the atman and if a person perceives everything in the atman, his mind does not move towards mean or trivial thing. If a person perceives the atman through the atman all beings, he attains the state of equality and also attains the state of Supreme Bliss.

It is said as one lamp lights another and does not lose any part of its light so a noble minded man makes another man noble minded. The power of human energy is just like a lighted candle that removes the darkness. The energy when used for the exploration of the unseen powers and laws of nature is known as Yoga which teaches the techniques of transcending the limitations of the body and the mind. Self awareness will make us realise the existence of a power within. This power can be developed with the help of Pranayama and Meditation. There are six phases of consciousness. Body consciousness, Pranic consciousness, mental consciousness, astral consciousness, causal consciousness and disembodied consciousness. As already stated Prana is the supreme ruler working in our system. Psychic Prana is closely related to our nervous system and all the actions of the nerves. According to Yoga there are two nerve currents in the spinal column, called Pingla and Ida, and there is a hollow canal called Susumna running through the spinal cord. At the end of the hollow canal is the seat of

Kundalini the hidden force. It is described in the 'Yoga Shastra' as Muladhara Kundalini, usually attributed to psychic powers. The word Kundalini means coiled up in sleep Kundalini is usually attributed to psychic powers. The word Kundalini means coiled up in sleep Kundalini, means the arousing of the body latent power. Kundalini is said to be coiled at the back of the spine. The Kundalini is hidden like a buried treasure which is designed symbolically by circles or wheels or 'Chakras'. The seven main Chakras are —Muladhara, Svadishtana, Manipura, Anahata, Vishudha, Ajna and Sahsarara, when Kundalini awakes, it tries to force a passage through Sushmna and as it rises step by step, all the psychic powers and visions come to the practitioner when Kundalini wakes up it goes from centre to centre upward towards Saharara, when Kundalini awakes, it draws with it all nerve currents, nerve currents are produced by Prana. When the Kundalini is awakened it goes upwards like an electric current rising from the base of the spinal cord and going upwards with the help of Pranayama, when the mind is concentrated on one point the nerve currents go up step by step and one becomes unconscious of the lower extremities of the body. When the consciousness reaches the brain (sahrarachakra) the lower parts of the body become numb. The practitioner feels unconsciousness or numbness in the body but he is not actually unconscious. One's mind is fixed on something higher. These are the different stages through which mind goes from concrete to finer stage. The abstract or absolute stage is beyond time and space, beyond thought or speech. So long as one has thoughts in the mind, he is far away from the absolute. Though this process is very difficult to do but it be done by constant practice and firm determination. One shall have to train ones mind to go beyond thoughts. When the Kundalini wakes up

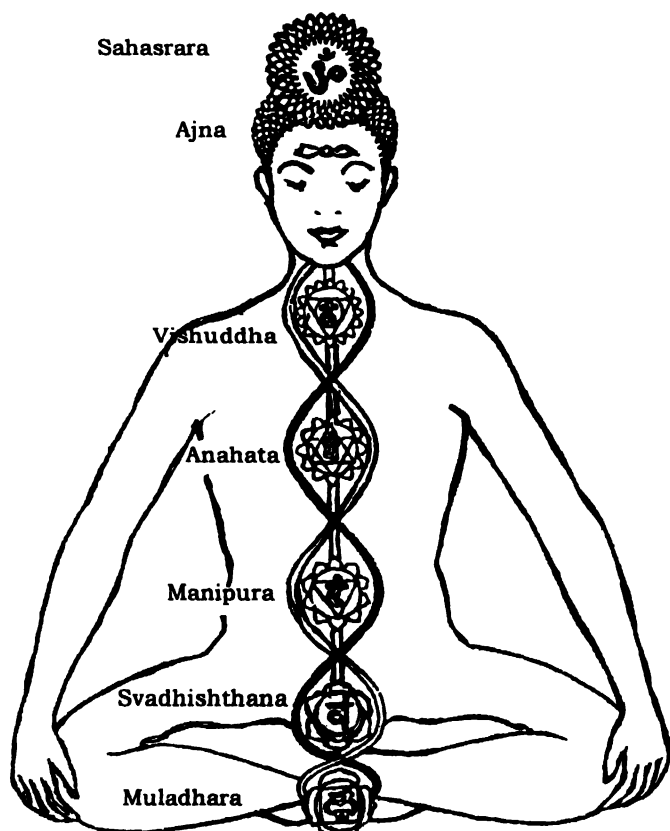


Fig. 10.1: The Psychic Prana

and enters into the centre of the brain (shasrara chakra) becomes detached from the gross sense consciousness. He is then above the consciousness of the body and the place where he is sitting with the sense perception we are conscious of our surrounding. But when we go to sleep we are not conscious of our surrounding when our mind is deeply concentrated and absorbed we gain control over our body. Swami Muktanand has said, "That Kundlaini is the basis of all Yog Tantras. All Yogas are attainable by the awakening of Kundalini". Our

consciousness is working different planes of existence. Now it can be on lower sense intellectual or mental plane. Yoga describes all these process in a scientific way with the help of Pranayama or meditation. Any person can attain to these states. Every individual possesses these powers of this energy but every individual has not aroused this power.

Each of the centre of Chakra has its peculiar colour, odour and musical sound. The Chakras are the store house of divine powers. Mooladhara spine between the anus and the genitals. Its symbol is lotus with four petals. It's colour is yellow and goddess is dakini. Svadishthama chakra is located at the genitals. It's symbol is lotus with six petals. Its colour is white and the goodess is Rakini. Manipura Chakra its symbol is lotus with ten petals its colour is red and goddess is at the heart. Its symbol is lotus with twelve petals, its colour is blue and goddess is kakini. Vishuddha Chakra is located at the throat and its symbol is lotus with sixteen petals. Its colour is white and goddess is Sakini. Ajna Chakra is located between the eye brows. Its colour is snow white and symbol is lotus with two petals. Its goddess is Hakini. Sahasrara Chakra is located at the cerebrum. Its symbol is lotus with a thousand petals and its presiding god is Shiva.

The Yoga terminology and methadology can be understood in modern physiology. There are two sorts of actions in these nerve currents one is afferent and the other is efferent one is sensory and the other motor. One centripetal and the other centrifugal. One carries the sensation to the brain and the other from the brain to the body. The sensory nerves produces sensation and the motor nerves activity. For instance if a pin is pricked in our hand we will get pain and our whole body will react and we will try to withdraw our hand for nerves are like wires through which the sensation travels.

We regulate the vibration of the molecules of the body through breathing exercises. If Pranayama exercises are done correctly we get a rhythm in our inhaling and exhaling molecules will vibrate in harmony with that rhythm and we will then generate a current almost the same as electricity which may be called magnetic. The Sadhak wants to train up as it were all the molecules of his system and vibrate them. They can produce tremendous vibration. The vibration will be so strong that if he sits in a room everybody will feel that vibration. The Sadhak will try to transmute the physical forces into mental forces and then to spiritual forces. "Because there is no difference in kind, between the physical and the spiritual. They are all connected". The same Prana is working through the layers of these different planes of vibration just as there are different manifestations of electricity so there are different manifestations of Prana. For instance, what moves street cars is electricity when it gives us it is electricity and it can produce sound and music too. That is still electricity. Similarly, Prana is manifesting on different planes. The Sadhak does transmute or change at will so rhythmic breath is the base of Kundlini Yoga. Rhythmic breathing can give vibrations, and by vibrations our whole body will be shaken. If we can attain rhythmic action in all the organic functions by our will power. But our will power should be stronger than all the organic functions. All our systems namely circulatory system, digestive system and respiratory system are working and performing their functions. But they are not under the control of our conscious will. When they are controlled will becomes instrument which can be directed in any way we like. When we withdraw our mind from sense objects and the body, the fear of death will vanish away from our minds. Since Pranayama implies the control of Prana or the vital force. This vital force can be controlled with the Pranayama and exercises and Kundalini can be aroused

with Pranayama exercises and concentration. There are different methods of arousing Kundalini such as Bhakti Yoga, Japa yoga and Tantra Yoga. But Pranayama exercises are the most scientific of all the methods. Kundalini can also be aroused by love and prayer, our mind becomes concentrated through emotion and we forget everything connected with the body and if the emotion is very strong our mind is concentrated and our breath becomes rhythmic with the result that we generate a current in the system and the Kundalini is aroused. It is just the rousing of Kundalini, the coiled up energy, and that energy contains all the spiritual powers, all the psychic powers, certain psychic powers are very fascinating but they are also the most dangerous. Therefore we must be very careful as we are to practise and what we get when we are not deluded and when we do not accept anything which comes in our highest state of god consciousness and we will overcome all the temptations and limitations and we will be able to know the truth and when we know the truth we will be free from all bondage and disease.

The Yoga of Meditation

"What is the use of being the head of the richest monastery. If the mind is not pure, the intellect is not steady and the reason is lacking in discrimination".

—Swami Muktanand

Today life is becoming more and more complex full of tensions and chaotic situations. On the one hand, there is explosion of population. Explosion of knowledge has given man maximum comforts. But civilization has given man psychosomatic diseases like diabetes, hypertension, heart ailments, stress and fatal diseases cancer and AIDS. Today man is neither at peace with his environment nor with his own self. In spite of all sorts of comforts man is not happy. He feels that something is lacking somewhere. He feels that the only way to lead happy and contented life is inwardness unfolding the divinity. This can be done only by means of meditation. Meditation is most important aspect of Yoga.

Concentration and meditation are inseparably bound up with each other. For any productive activity concentration is a must. When we feel angry or agitated,

our breath is irregular and quick. But when our mind is restful, our breath is deep long and regular. All the changes in our breath are influenced by our mental states. Therefore the science of breath is of great importance. The practice of the science of breath helps in concentration. When we find that our mind is oscillating, wandering and we cannot concentrate upon any single object. We must take a few deep breaths and it will be easier for us to concentrate our mind upon any single object. It may be any activity; physical, commercial or sexual, the process of concentration is the same but the object of concentration varies and the result which we obtain also varies. According to Patanjali there is a step preliminary to concentration. It is called Pratyahara which means gathering force or energy. In fact "the rays of the mental energy are scattered going through the doors of our senses into the external world and that way we are becoming conscious of external world.

Pratyahara implies that we should gather those scattered energies and focus them towards one point before we can learn how to concentrate our mind. With most of us, our senses are more powerful than our will power. Our mind is allured and tempted by sensuous things and attractive sights and sounds. Our mind is working under the impressions that we receive through our senses and we have not power to overcome them. But when we have gained that power we can withdraw our attention from different objects and fix it upon one object of our choice. Gathering of the scattered rays of the mental energy towards one point will aid us to understand what is going on within us. All of us know that how difficult it is to concentrate our mind. When we try to concentrate, mind runs away, It is by nature restless. Our mind which is restless drinks the wine of sensuousness, pride, ego, vanity, jealousy and envy. But

how to control the mind? Different Yogis have given different methods for controlling the mind. The first method is to sit for sometime and let the mind run wherever it goes but keep a watch. But we should not lose sight of the mind. The mind turns back to see whether it is watched or not and if it finds somebody watching, it does not go very far, but comes back. For instance when we have once enjoyed sexual act, your mind had the tendency to repeat it and to want it again and again and when you gratify that sexual desire, it rises up again in your subconscious mind in another desire. This is applicable to all. So the mind is bubbling up the more you try to control it the more thoughts and desires will come up forming a mental picture. Sometimes we feel ashamed of our own thoughts and desires. Again the same question arises how to control your mind you must give full length of the reins, watch and know where the mind is going. In the first few months you will find that mind will have endless variety of thoughts later on by constant practice of Pranayama you will find that the mind is toned down and after a few more months it will have fewer and fewer until at last it will be under your control. You must be conscious of the thought that you are going to control your mind. The Pranayama or controlled breathing can help in controlling mind. According to the old proverb "When a man has controlled his mind the whole world is at his feet". Pratyahara or the controlling of the mind is the basic step to concentration. When one has gained that Pratyahara one can take whole of the mind from one place to another. There is nothing to distract and nothing to disturb one can divert one's energy to any direction one chooses. It is just one stream flowing in one direction. After Pratyahara comes Dharana or concentration and then Dhyana or Meditation and finally Samadhi or superconsciousness. When all the three Dharana, Dhyana and Samadhi are practised together the act is

called 'Samyama' or perfect control. Dharana implies the holding of the mind on a certain point. Ordinarily your mind is wavering and restless. You will have to hold the mind on to the point where you intend to concentrate. This would be the basic practice before concentration. Then if you hold your mind on one point and that would be meditation. After the perfection of meditation, the state of super consciousness (Samadhi) is attained. By concentration, you can send the flow of blood to any part of the body. Through concentration you can do almost anything. It is devotion which can help in concentration devotion means the constant thought of the subject. When we say a wife is devoted to her husband it means that she is always thinking about the welfare of her husband. We can gain the power of concentration that we can gain control over the body and the mind.

People in general have a misconception about Sanyasin. That the Sanyasin should not shoulder any responsibility and that he should be a drone is the prevalent notion. Lighting fire is a symbol of performing yagna. The general wrong belief is that the Sanyasin is not to do any altruistic work. Arjuna's plea that he would not engage himself in the impending war and that he would beat a retreat and live on holy alms is an example of this wrong idea. But the Lord's contention is different. What he upholds is true practice of Vedanta no person should ever discard action. Each has his duty and it has to be well executed. Among the doors of duty, he is a Sanyasin he is a Yogi who discharges duty for duty's sake and in no way attached to the fruits of his action. Because of the renunciation of attachment to work and its effect, he is a Sanyasin and because of his doing the duty very efficiently he is a Karma Yogi. In the Gita, the Lord says "for none becomes a yogi without renouncing sankalpa. It is sankalpa to create a formative imagination

in the mind about the fruits of action. It is actuated by desire. Endless projects are taking place in the mind, one nullifying or modifying the other are born of sankalpa. He also succeeds in renouncing sankalpa qualifies himself for the practice of Yoga. Strength of mind is his who practised Yoga. Only a man of strong mind can meditate as well as discharge his duties very efficiently. This is how sankalpa, and Karma Yoga become identical. The Lord further explains, 'He is a Muni in the making who applies himself ardently to the practice of Meditation. Though practising regularly his mind does not easily get concentrated. It wanders away in spite of himself. In that case the Yogi ought to engage himself eagerly in Karma Yoga. The non-Yogi who busies himself with the work he undertakes is rewarded by nature with sound sleep at night. The Yogi is busier definitely in the discharge of his duty but with no attachment of selfish motive. Good concentrated meditation is the reward he gets for his disinterested work. Clarity of mind is the result of deep meditation. It is this clarity that gets it self settled, through proper meditation the mind gets poised in equilibrium. As the crystalization of a stuff takes place in a result condition, so the mind get fixed in equilibrium through Meditation on the attainment of serenity. It becomes fit for all purposes personal and public, deep meditation is the Yogi's personal activity in which he delights in the sublimity of the self. Serenity is the foremost of all the accomplishment of the Yogi. From this divine gift emanate merits such as unison, equality, truthfulness, good conduct, steady fastness, straight forwardness, non-injury to beings and detachment from the world.

The Lord says to Arjuna that one is one self responsible for one's destruction or debasement. The contribution that others make in these respects are secondary.

Uddhared atmana tmanam na
 tmanam avadayet !
 atmani va hyatmano bandhur atma
 varipur atmah !!

—The Gita 6-5

"Let a man raise himself by his own self,
 Let him not debase himself for he is
 himself his friend himself his foe".

—The Gita 6-5

One is oneself responsible for his ailments and honours. The contributions that others make are secondary. It is but usual that one complains that one's enemy has done havoc to one. But no one can be hurt without oneself contributing to it. It is possible for a Sadhak to avail himself of wrong done to him by his enemy for self-purification. Because of misunderstanding and mal-adjustment. And by doing so he becomes his own enemy. On the other hand by right understanding and right conduct he elevates himself and thereby becomes his own friend. One is one's own arch-friend, or arch enemy. Then the question arises how shall one choose to be one's true friend? The solution is offered in this verses.

Bandhur tmanas tasya yema
 'tmai va' tmana jitah !
 anatmanas too satrutva varteta
 'tmai va satruvat !!

—The Gita 6-6

"To him who has conquered his (base)
 self by the (divine) self, his own self is
 the friend. But to him who has not

subdued the self, his own self acts as the foe”.

—The Gita 6-6

The base and the divine are the two mutually opposing natures at work in man. When either of them predominates the other gets vanquished. Where the body, mind and senses are under perfect control the divine nature prevails and pulls the man up. Progressively he evolves into high orders of existence. But when he submits to the base nature, it ruins him completely. The foe outside hurts or attempts to hurt occasionally. Even then, it is possible for a self disciplined man to turn that adverse situation to advantage, every ordeal calmly handled adds to the calibre of one's mind. The foe of the base nature within oneself on the other hand, is constantly causing havoc. The reckless man therefore is personally responsible for the evils that he has brought on himself. He is worst enemy of himself.

It is but natural for an ordinary man to react differently with different people according to their relationship. But the Yogi's angle of vision is the same. Beings in it are all different manifestations of the same divinity.

For doing meditation the Sadhak should have favourable environment:-

Yogi yunjita satatam atmanam
rahasi sthitah !
ekaki yatachittamtma
nirasir aparigraha !!

—The Gita 6-10

"A yogi should always try to concentrate
his mind living alone in solitude

having subdued his mind and body
and got rid of desires and possessions”.

—The Gita 6-10

It is in solitude that the mental worth of one is truly seen into when an aspirant shuts himself up in a room, he knows that there are people in the other rooms and they know that he is confined to a particular room. A setting like this does not fulfill the condition of the sadhak being alone in solitude. Others should not know of his whereabouts and he should have none but God to commune with. It is by being alone in solitude that one's mind can truly be assessed by oneself. “Minimizing the bodily requirements is imperative for spiritual advancement. He is a Yogi who has reduced his bodily needs to the bare minimum”. In this context Sri Ramakrishna has said, “The truly virtuous man is he who commits no sin even when he is all by himself. That is no virtue which is practised for fear of public opinion. He alone is established in self-control who does not lustfully think of a woman in privacy or in public. He alone is established in self-control who does not cast a covetous eye on the gold coins that he comes across even in a deserted house”. There is a close relationship between the environment and the cast of the mind of the person placed therein. Living in a dirty hovel naturally leads the dweller to baseness and depression of mind. Living in a clean place of natural beauty invigorates and elevates the mind. The seat for meditation should be ideal, free from mosquitoes, ants, rats, noisy, smoky or polluted atmosphere. How should one practise meditation. The process is explained in the Gita—

Tatrai kagram manak krtva
Yatacitteerriyakriyah !
upavisya sane yuniyat yogum
at mavisuddhaya !!

—The Gita 6-12

“Sitting there on his seat making the mind one pointed and restraining the thinking faculty and the senses, he should practise meditation for self-purification”.

—The Gita 6-12

The body should be disciplined to bring about concentration of mind. When the body head and neck are held erect the spinal cord becomes vertical. In this posture harmonious breathing takes place easily and freely and good thoughts come in naturally. The postures assumed for meditation should be firm, facile and deliberate. As the mind is purified in meditation, the eye-balls assume steadiness and seem as if they are gazing at the tip of the nose while actually at rest. In meditation all modifications of the mind merge in the self becoming as bliss or as pure consciousness. According to Swami Ramakrishna, “In Meditation there is one pointedness of the mind. Then eyes see not and ears hear not body becomes inert, as it were. Any snake crawling on the body is not sensed then by the Sadhak nor does the snake apprehend any danger from its contact with the human body. It is said “Solitude is the soil in which your true self blossoms”.

Great saints and sages have advised that the guarantee of freedom for the individual lies only in one thing, to move away from the illusion personal self-seeking that is to let go off selfish motives. All selfishness whether expressed through thought, word and action brings the human soul into many limitations or boundages which create pain and sorrow, selfishness produces desires which keep a person in a perpetual state of “Hunger”. Desire also robs the soul of dignity for it leads to jealousy greed, hate competition. Desires are constantly at work in the mind. The modern mind is burdened and confused with numerous thoughts based

on expectations and aims which have no true value. The desire for name, power and pelf blinds a person's ability to reason clearly so that gradually he is trapped in the web of 'I' and 'My'. Another result is stress—the mind is so occupied with getting and possessing that it is always creating new desires and simultaneously feeling pressure when it cannot fulfil them. Unfortunately the person is so addicted to various patterns of expectations from himself, family, and society that he feels that only way to happiness is to be constantly creating methods to fulfil such demands. Thought after thought, day after day he strives struggles and even fights towards this goal. Gradually after much effort and labour there is tiredness and the feeling of failure. Not being able to achieve his aims a person can lose hope and self-respect with the result that both physical and mental health are affected.

Our mind is constantly running towards the external objects, and when we control the flow of our mental energy from running towards them and keep it fixed on higher objects, it is called meditation. For instance, when we concentrate or meditate on some spiritual subject 'Om' or our true self, our mind ought to be steady upon that subject. If our mind is not steady, we cannot catch the real glimpse of that subject simply repeating the word 'Om' would not give us its true and spiritual meaning. The object of meditation is to understand the real meaning and to realize it. To feel it and be one with the subject. We have to form a concept or mental idea of 'Om'. We have to lift our personality to a higher place so that all the limitations drop off and we become one with the infinite. Simply repeating the spiritual subject or mantra will not suffice. We have to realize it. By realization is not meant the intellectual perception or understanding, but it is the feeling, the immediate awareness of one with the infinite. As we go deeper and deeper in the spiritual subjects, we would grasp the real significance

and meaning of the mantra. We have to become one with the meaning. We have to train our mind, and discriminate between the real and unreal and hold the attitude that wordly things do not give us what we want. We want to get something transcending which is the consciousness of the infinite. We cannot get it through the sense plane. We have to go beyond this, we have to reason it out and meditation is the only process by which we can get to that point. But it needs constant practice. Our aspiration should be higher because we are trying to know the infinite. Patanjali has said in his 'Yogsutra' that one who tries to realise the infinite should practise concentration and meditation alone so that he would not be disturbed by the distractions of the mind 'Chittavriti', we must have determination, patience and faith in concentration and meditation. We must put our whole heart and soul into it.

The first result of meditation is that it will tone down the nervous excitement and give sound health to the Sadhak. In fact those who practise meditation, earnestly and with faith and determination will acquire many psychic powers. Sometimes they hear sounds that come within. There are two kinds of Sadhak in the process of meditation. some try to reach the highest and be 'Yogis' and others try to get certain result so that they can remove their immediate ailments and disorders.

In the practice of meditation food occupies very important place. More food is required for him who does physical labour and who is spending muscular energy. The Sadhak of meditation should not eat such things and drink such stuff as would arouse his passions. Moreover the Sadhak should avoid spicy, fried, roasted, things. The Sadhak should use his or her discrimination and choose Yogic food which is simple, nutritious and vegetarian. We must not forget that the body is the best instrument we have and we must take care of it because

na'tyasnatas tu yogo' stinacai
Kantam anasnatah !
naca' its vapnasilasya jagrate
nai 'va ca rjuna !!

“Yoga is not possible for him who eats too much nor for him who abstains too much from eating, it is not for him, o Arjuna, who sleeps too much or too little”.

If a Sadhak over-eats he becomes a dullard, if he undereats he becomes weak. In regard to the quantity and sort of food, one's physique is not the standard for another's. Sleep brings rest and relaxation and tones the system, but over and Under indulgence in it aggravate tamas or inertia. Which are impediments in the practice of meditation. Swami Ramakrishna has said, "A Sadhak ought to help himself to that food only which is not heating to the body and exciting to the mind".

On analysis it may be found that mind runs after those objects to which it's has been attached. The evils of such attachments have to be repeatedly and timely presented to the passionate mind. As the force of passion gets put down mind comes under control. When all the base attachments are wiped out through discrimination mind blooms into serenity. Practice of non-attachment is therefore auxiliary to the practice of meditation. In this context Swami Ramakrishna has said, "He who wants to learn swimming has to be at it repeatedly. It cannot be learnt with one or two attempts. One dares not swim in the boisterous sea just after a days practice. Similarly one has to train oneself much to swim in the

sea of sat-chit ananda. Failure in the first attempt is but natural. Spotting in it becomes possible only through persistent practice”.

Meditation alongwith repetition of a mantra should be practised in the morning or evening hours. In general repetition of mantra is better way of doing meditation. The Hindu scriptures are the crowning achievements of Indian thoughts and culture. The most remarkable quality of these scriptures is their universal appeal, universal love and universal prayer. Great are the powers of prayer, Coleridge has rightly said—

He prayerth best who loveth best
All things both great and small,
For the dear God who loveth us
He made and loveth all.

The Sadhak of meditation can start with Japa or prayer with slightly sounded whisper. Later, it will refine itself into a repetition done silently in the mind. As a result of continuous practice of the mantra, the mind becomes steady and concentrated. Swami Bhavyanand states, “Prayer in which can be included reading, repeating and dwelling upon hymns helps very much to prepare our minds for meditation. As an aspirant grows spiritually, a prayerful attitude naturally develops in him”.

Consciousness implies awareness of ourselves and also of the universe around us. According to Yoga philosophy there are four states of consciousness (1) Waking state (2) dreaming state (3) dreamless sleeping state and (4) Turiya state or state of superconsciousness. The eastern saints and sages have laid stress that one must learn to know the self, by directly our mind to look towards our innerself which lies beyond all thoughts and desires. Such a search ultimately leads the realisation that our innerself or individual self is a part

of universal consciousness. This realisation of the self is to be achieved by different types of meditation. This feeling of pure self is the basic fact which one will have to realise. Peter Russell describes this state of consciousness as, "The only way to know the pure self is by systematically reducing the impact of sensory experience until only self remains—In this state there is no longer any experience of "I am this" or "I am that". There is not even the experience "I am". It is simply a state of pure being. The experience of such a being is difficult to attain by ordinary means. By meditation alone one can attain that state gradually. It is the message of all our Upanishads, "What is within us is also without, what is without us is also within". Similarly Jesus Christ also said, "The kingdom of God is within you". Swami Muktanand has said, "The purpose of meditation is inner happiness, inner peace when all the senses become quiet and you, experience bliss that is the attainment, the world is the embodiment of joy. Joy lies every where, find it and attain it — Meditate on yourself. Honour yourself. People suffering from HIV/AIDS generally suffer from stress, tension and anxiety. With the help of meditation they can get inner peace and relaxation—physical, mental and psychological.

12

The Diet Therapy

"Life is not Living
but living in health".

—**Martial**

The importance of diet cannot be underestimated. The blood which is the life of an individual is made from food. Blood requires both oxygen and food. Food and health bear close relationship. Today, most of the doctors show disinterested attitude towards their patients about the diet if a patient seeks the advice of the doctor regarding diet. The patient is told, "Take whatever you like" but Yoga gives great importance to balanced diet. Balanced diet is essential for sound mind and sound body. Food is necessary to supply the body with the ingredients for growth and efficient functioning. It is true that one man's meat is another man's poison. But there are certain basic rules that must be adhered to for good health. many common diseases and ailments prevalent today are due to thoughtless feeding. We buy our own ill health in the food we eat we have to follow the rule, the right kind of food, at the right time and in

the right proportions. One school of thought says that it does not matter what we eat. But it does matter, it is our bounden duty to acquire some basic knowledge about the balanced diet. In Yoga balanced diet means simple, nutritious vegetarian diet. The balanced diet implies the proper proportions of proteins, carbohydrates, vitamins, fats, and water. The ultimate aim of food is to be digested, absorbed, and then assimilated into the system. This is brought about almost completely in the alimentary canal, which is made up of the mouth, pharynx, oesophagus, stomach, small and large intestines, culminating in the rectum.

For the people who have HIV infection with poor nutritional states are more prone to infections. For them balanced diet of cereals, proteins and large proportions of vegetables are advisable. The three elementary components of food are proteins, carbohydrates and fats. These are known as the proximate principles of food. Richness or otherwise of the various foods, is dependent on the proportion and the quality of these principles present in the foods. Proteins are very complex nitrogen containing substances. These are formed by different combinations of about 20 amino-acids. Twenty different aminoacids are widely distributed in proteins, while small amount of four or five additional amino acids have been isolated from one or more proteins but muscle cells contain the highest percentage of this substance. Proteins are classified as complete partially complete or totally incomplete. The complete proteins contain the essential amino acids in sufficient quantities for maintenance and normal rate of growth, partially incomplete proteins will maintain life, but they lack sufficient amounts of some of the amino acids necessary for growth. Totally incomplete proteins are incapable of replacing or building tissue and hence cannot support life.

Proteins constitute the chief solid matter of muscles and glandular tissues in fact all cells and all body fluids, except bile and urine, contain protein. Body tissues are not static but said to exist in a state of dynamic equilibrium, that is, a constant and rapid breakdown of cell materials occurs balanced by an equally constant and speedy synthesis of new constituents. The first need of amino-acids then is to supply the materials for the continuous replacement of cell protein throughout life. Building of body cells is only one of the functions of proteins however many proteins have highly specialised functions in the regulation of body processes. Hemoglobin and Iron bearing protein which is the chief constituents of red blood cells, performs a vital role in nourishing the body by carrying oxygen to the tissues, plasma proteins are of great importance in the regulation of osmotic pressure. If there is a decrease in the plasma proteins the water balance may be so disturbed that fluid will accumulate in the tissues. Proteins have a role in maintaining the normal slightly alkalinizing reaction of the blood. Enzymes such as trypsin and pepsin are protein in nature. The body's resistance to disease is maintained in part by antibodies which are protein in nature. In the event that energy needs are not covered by carbohydrates and fat. Proteins may also be used as a source of fuel. Each gram of protein used for energy will yield 4 calories. Proteins are important in their effects on body metabolism. The ingestion of all foods produces a stimulation of foods of metabolising which in turn result in increased body heat or the feeling of warmth. This effect is known as "Specific dynamic action" of foods and is most pronounced following the eating of a healthy protein meal. A diet high in protein will therefore be conducive to greater comfort in cold climates. Amino acids are absorbed through the intestinal walls and then are carried directly to the tissues or to the liver. A very small fraction of a soluble peptones may be absorbed as

such into the blood stream. The functions of each of the aminoacids in the body are given below :—

Name of the Acid	Needed for	Rich sources
1. Aspartic Acid	Lungs, heart, Bones teeth, bloodvessels	celery, carrot, cucumber, mint, radish, tomatoes turnip, lemons
2. Arginine	Reproductive organs muscles cells.	Cucumber, celery radishes, potatoe carrots.
3. Alanine	Adernal glands, skin	Alfalfa, lettuce, turnips, green peeper, spinach, apples, almonds
4. Cystine	Breasts, vitality, hair	Alfalfa, carrots, cabbage, onion, cauliflower.
5. Glutamic Acid	Secretion of diges- tive, juices, panc- reas.	Mint, spinach, papaya, beetroots, cabbage.
6. Glycine	Muscles secretion of sex hormones.	Mint, turnip, spinach, figs, potatoes, oranges.
7. Histidine	Liver Hemoglobin semen.	Raddish, carrots, beetroots, garlic, onions, apples.
8. Hydroxy proline	Gall bladder, liver	Plums, cherries, grapes, olives, figs, almonds.
9. Hydroxy Glut- amic acid	Secretion of dige- tion juices	Lettuce, spinach, tomatoes. grapes, pineapples, celery plums.
10. Iodogorgoic	Glands	Pineapples, celery, spinach, tomatoes.

Name of the Acid	Needed for	Rich sources
11. Isolencine	Spleen, thymus	Papaya, olives, apricot, coconuts, almonds.
12. Lysine	Galbladder, liver, fat Metabolism.	Beet roots, turnip, carrot, plums, grapes.
13. Leucine	Counter balancing isolencine.	Apricor, grapes, olives, papaya, almonds.
14. Methionie	Spleen pancreas	Grapes, olives, apples, spinach, pineapples, mint.
15. Nor leucine	Counter balancing lencine	Papaya, loves apricot, carrot, cabbage.
16. Phenylalaie	Kidneys urinary-bladder.	Carrot, beetroots, tomatoes, spinach.
17. Proline	White blood lugs bronchi.	Radish, garlic, onions, carrot, celery cucumber.
18. Serine	Mucous membranes	Carrot, celery, garlic.
19. Threonine	To make good the deficiency of other amino acid.	Alfalfa, carrots, green leafy vegetables, papaya.
20. Thyroxine	Thyroid, pitutary glands, adernal glands	Lettuce, spinach, turnips, celery tomatoes.

Persons suffering from HIV need vitamin A,B and C in their diet. Vitamins are organic compounds the body needs in small quantities to promote growth and cell reproduction and to defend against infections virus and

bacteria. Vitamin A appears in red and yellow fruits, and also repairs epithelial tissues such as those that line the air passage ways, the intestines, the kidneys, the bladder and other organs. It also aids in the digestion of protein. Vitamin A is vital to night vision. It helps form visual purple, a substance that helps one's vision to recover after light has struck the retina of the eye.

The B vitamins (B_1 , B_2 , B_3 , B_6 , B_{12}) appear as a complex in natural foods—That is they come together as a 'Package' rather than occurring separately. Because they always appear together. We must suspect that nature had a reason for packaging them that way. Vitamin B_1 (thiamine) has been called 'The laughing vitamin' because stress, tension and depression are common symptoms of B_1 deficiency. Persons suffering from HIV/AIDS often feel depressed and undertension. This vitamin is also called 'Morale' vitamin because of its effect on attitude and nervous system. An insufficient supply of thiamine makes it impossible for the body to completely metabolize carbohydrates. If the deficiency continues for a long time, acidic symptoms begin to appear—irritability, fatigue and mental instability. In addition to the mental and emotional symptoms the heart and vascular system may begin to show symptoms. Rich sources of vitamin B are to be found in the following pulses, legumes, vegetables and fruits—

Rice bran, wheat germ, wheat flour, barley, maize, finger millet, green gram, peas, lentil, lotus stems, capscums, groundnuts, mustard seeds, walnuts, raisins, chilgozas, almonds, apricots, melons, prunes, banana, skimmed milk powder, cow's milk. Vitamin C (ascorbic acid) is necessary for persons having HIV/AIDS because they have to fight virus infection. Vitamin C also its antioxidizing properties protect other tissues from damage and other vitamins from premature breakdown. Vitamin C intake is highly individualized and depends upon

person's energy levels. Vitamin C is a water soluble vitamin however half-life of Vitamin C in the body is sixteen days, making this vitamin storable to some extent. The rich sources of vitamin C are citrus fruits and vegetables (Main sources), cereals, pulses, red gram, maize, bengal gram, parsley drumstick, turnip, cabbage, raddish, leaves, carrot leaves, cauliflower, turnips spinach tomatoes, sweet potatoes, ladies fingers, papaya, lettuce, coconuts (dry) coconut milk, guava, orange juice, lime, lemons, lychees, mangoes, pomegranates, melons. Khoa (whole milk), skimmed milk, cow's milk. Minerals can be defined as those elements which remain largely as ash when food materials are burned. They occur in foods and in the body both in organic and inorganic combinations. For example, sodium and chlorine exist as an inorganic compound, while iron and phosphorus may occur in such complex organic materials as hemoglobin and phosphoproteins. Four chemical elements compose about 96 percent of the body weight. They are—

Oxygen ——— 65 percent

Carbon ——— 18 percent

Hydrogen ——— 10 percent

Nitrogen ——— 3 percent

The remaining four percent of the body weight is made up of the elements usually designated as minerals, certain minerals are present in such small amounts that they are spoken of as 'trace elements' Minerals enter to a greater or lesser degree into the structure of all body tissues. The part played by minerals in regulation of importance. The contraction of muscles the irritability of nerves, the control of water balance, and the utilization of food stuffs are few of their numerous functions.

Another metal indispensable for life is sodium. Practically of all the sodium of the body is found in the extracellular fluid, that is in the blood plasma and in the fluid which bathes the tissues. Sodium functions to regulate the acid base equilibrium and to maintain the osmotic pressure. It is very readily absorbed and the body content is kept within narrow limits by the regulatory activity of the kidney which excrete any excess. Sodium is also lost from the body in the feces and from the skin. The adrenal cortical hormone is also connected with the metabolism of sodium. Following are rich sources of sodium—

Wheat flour, maize dry, maize tender, finger, millets, rice flakes, bajra, red gram (tender), bengal gram whole split black gram, green gram, lotus stems, amaranth, radishes, spinach, lettuce, cauliflower, tomatoes, mangoes, round gourd, lychees, melons, banana, pineapple, apples, cow's milk, curd.

Another mineral essential for HIV/AIDS victims is iron. It is necessary for the production of haemoglobin. The obvious function of iron is as a constituent of blood haemoglobin in which its presence makes possible the transportation of oxygen from the lungs to the tissues. Haemoglobin is a highly complex substance composed of the protein, globin and an organic iron compound, heme. The amount of iron present in the adult body is about 3 to 5 grams of this a little more than half is in the circulating haemoglobin and about 10 percent is in the muscle haemoglobin. The rest is stored in the liver, bone marrow, kidney and spleen. The body exercises amazing economy in the use of iron. When the red blood cell has fulfilled its life cycle of 100 days or a little less, the worn out cell is broken down by the liver or spleen so that iron may be saved for new haemoglobin. The normal man needs relatively little iron and will get enough of this element if his diet is otherwise adequate. The normal

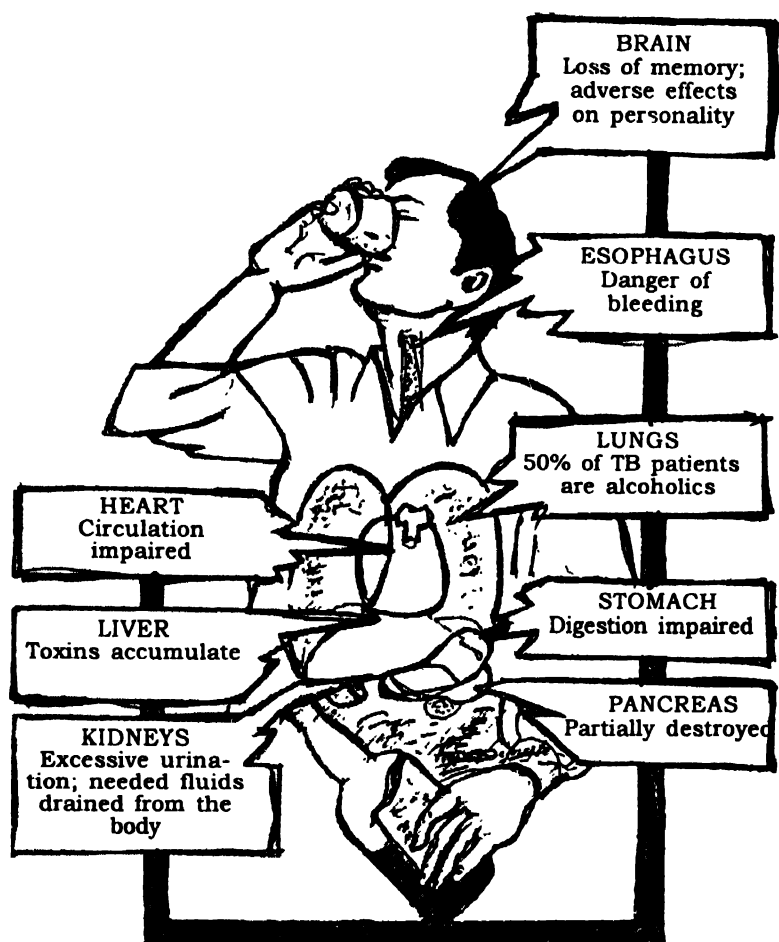


Fig. 12.1: Effects of Alcohol

man should have a diet which contains 12 to 15mg iron. Normal women should receive 12 mg iron daily while the allowance of this element should be increased to 15 mg during pregnancy and lactation. A deficiency of iron can cause nutritional anemia. The best food sources of iron are rice flakes, rice puffed, wheat germ, wheat, whole jowar, soya beans, moth beans, cowpeas, lentil, peas, dry peas, roasted, green, lotus, stress,

cauliflower cow pea leaves, parsley, mustard seeds, water melon seeds, cashew nuts, almonds, whole milk, skimmed milk.

Smoking, alcohol and drugs have no place in Yoga. Tobacco smoke is a mixture of hot air and gases in which are suspended small particles called 'tars'. At least 1200 different toxic chemicals have been identified in tobacco smoke. Many of the particles contain carcinogens, substances that cause cancer. One of the constituent of tobacco smoke is the drug nicotine. Most of the heart diseases and deaths among smokers are due to the drug effects of nicotine on the circulatory system which lead to heart disease. Coronary artery disease accounts for about 45 percent of the total excess deaths related to smoking. The second way in which nicotine affects the central nervous system is through its action on the adrenal glands. It causes endocrine glands to release adrenal hormones which then circulate in the blood and excite the sympathetic nervous system. Nicotine is also thought to be responsible for the elevated free fatty acid levels found in the plasma of smokers. In addition, nicotine increases platelet adhesiveness and thereby a tendency towards blood clotting.

Alcohol is a top killer and produces tragic consequences in innumerable ways, its physical and mental effects are traumatic and poisonous. Alcohol is easily absorbed from the digestive tract into the blood stream and is quickly distributed throughout the body. An alcohol concentration on 0.2 percent depresses all the motor centers and also the mid brain, the area concerned with emotions. When the alcohol concentration reaches about 0.4 percent it depresses the entire area of the brain and the drinker falls into a coma. Finally at a level of about 0.7 percent the centres controlling the heart beat and breathing are deeply

depressed and the person dies. By the frequent drinking, the drinker is dehydrated and in dire need of food and water. He also needs medication to settle his inflamed stomach. As a result he suffers from nausea, headache, heartburns, thirst, tremors, giddiness. These symptoms may be accompanied by insomnia delirium hallucination and convulsions. Alcohol also reduces the liver's ability to contribute to the formation of red blood cells. Liver damage may cause loss of energy varicose veins, swelling of the feet, sexual impotence, jaundice hepatitis (inflammation of liver) and cirrhosis (scarring of the liver). Alcohol can also damage pancreas and reduce the insulin production which can cause diabetes. Moreover, drinking can develop hypertension (high blood pressure) and abnormal heart beats. The excess of alcohol causes the blood vessels, the kidney to dilate. As a result the urination becomes excessive which can deprive the body of needed fluids. Montaigne has rightly said, "No wind favours him who has no destined port". Psychedelics, hallucinogens, LSP, narcotic, analgesics, amphetamines and sedatives play havoc with mental, physical and spiritual health of man, drug-addiction directly affect the senses and the brain. Drug in small doses at first stimulates the brain, heart and respirations. But this effect is followed by depression, headache, indigestion and vertigo. The addict develops demeanour, apathy hallucination and passionate desire for the drug. By the regular use and abuse of the drug, will power diminishes, capricious temper, irritability, negligence, sleeplessness weight loss, nervousness, forgetfulness diffidence, in writing and speech insomnia, weakness and intellectual instability appear. Modern man seeks to relieve sorrows, anxieties, sufferings stresses, tensions by means of pills and powders. He tries to live in a state of euphoric happiness and pleasure or to endure pain. The characters in Aldous

Table 12.3.1: Balanced Diet RDA (Recommended Daily Allowance)

Vegetarian Foods	Protein	Fat	Mineral Salt	Carbo Hydrates	Calcium	Phos Phorus	Iron	Calories Per 100 GMS
Wheat	32.8	12.1	1.7	1.8	72.2	0.04	0.32	7.3
Rice	8.5	0.6	0.9	77.4	0.01	0.28	2.8	344
Maize	11.1	3.6	1.5	66.2	0.01	0.33	2.1	342
Bajara	11.6	5.0	2.7	67.1	0.05	0.35	8.8	360
Jawari	11.5	1.3	1.5	69.3	0.03	0.23	3.7	355
Ragi	7.3	1.3	1.2	72.0	0.334	0.21	6.4	328
Green Gram	24.0	1.3	0.6	56.6	0.14	0.28	8.4	334
Black Gram	24.0	1.4	3.4	60.3	0.20	0.37	9.8	350
Red Gram	22.3	1.7	3.6	57.2	0.14	0.26	8.8	353
Lentil	25.1	0.7	2.1	59.7	0.13	0.25	2.0	346
Peas	22.9	1.4	2.3	63.5	0.03	0.36	5.0	358
Bengal Gram	22.5	5.2	2.2	58.9	0.07	0.31	8.9	372
Cow Gram	24.6	0.7	3.2	55.7	0.07	0.49	3.8	327

(Contd. ...)

Vegetarian Foods		Protein	Fat	Mineral Salt	Carbo Hydrates	Calcium	Phos Phorus	Iron	Calories Per 100 GMS
Gingelly	तिल	18.3	43.3	5.2	25.2	1.44	0.57	1.05	564
Groundnut	मूँगली	31.5	39.8	2.3	19.3	0.05	0.39	1.6	549
Soya Beans	सोयाबीन	43.2	19.5	4.6	22.9	0.24	0.69	11.5	432
Cumin	जीरा	18.7	15.0	5.8	36.6	1.08	0.49	31.0	356
Fenugreek	मेथी	26.2	5.8	3.0	44.1	0.16	0.37	14.1	333
Ghee	घी	=	98.0	=	=	=	=	=	900
Milk Powder	लैक्टेट पावडर	38.0	0.1	6.8	15.0	1.37	1.00	1.4	357
Almonds	बदाम	20.8	58.9	2.9	10.5	0.23	0.49	=	655
Pista	पिस्ता	19.8	53.5	2.8	16.1	0.14	0.43	=	626
Coconut	नारियल	6.8	62.3	1.6	18.4	=	=	=	662
Banana	केला	1.2	0.3	0.8	27.2	0.01	0.05	=	116
Apple	सेब	0.3	0.5	0.3	13.4	0.01	0.02	=	59
Grapes	द्राक्ष (आंगूर)	1.0	0.1	0.4	10.0	0.03	0.02	=	45
Sweet Lime	मोसंबी	0.8	0.3	0.7	9.3	0.09	0.02	=	43
Pineapple	अनानस	7.6	0.1	0.5	12.0	0.02	0.01	=	50

(Contd. ...)

Vegetarian Foods	Protein	Fat	Mineral Salt	Carbo Hydrates	Calcium	Phos Phorus	Iron	Calories Per 100 GMS
Water Chestnuts	13.4	0.8	3.1	68.9	=	=	=	330
Beans	7.4	1.0	1.6	29.8	=	=	=	158
Beal Fruit	1.8	0.3	1.7	31.8	=	=	=	137
Cashew	21.2	46.9	2.4	22.3	0.05	0.45	=	596
Walnuts	15.6	64.5	1.8	11.0	0.10	0.38	=	687
Cherry	1.1	0.5	0.8	13.8	=	=	=	64
Guavas	0.9	0.3	0.7	11.2	0.01	0.04	=	51
Amla	0.5	0.1	3.5	13.7	0.05	0.02	=	58
Papaya	0.6	0.1	0.5	7.2	0.01	0.01	=	32
Mango	0.6	0.4	0.4	16.9	0.01	0.02	=	74
Tomatoes	1.5	0.2	1.2	6.7	0.01	0.02	=	35
Ladies Finger	1.9	0.2	0.7	6.4	0.08	0.07	=	35
Palak Leaves	2.0	0.7	1.7	2.9	0.06	0.01	=	26
Methi Leaves	4.4	0.9	1.5	6.0	0.47	0.05	=	49
Limes	1.0	0.9	0.3	11.1	0.07	0.01	=	57

(Contd. ...)

<i>Vegetarian Foods</i>		<i>Protein</i>	<i>Fat</i>	<i>Mineral Salt</i>	<i>Carbo- Hydrates</i>	<i>Calcium</i>	<i>Phos Phorus</i>	<i>Iron</i>	<i>Calories Per 100 GMS</i>
Orange	संतरा	0.7	0.2	0.3	10.9	0.05	0.02	=	48
Dates	खजूर	2.5	0.4	2.1	75.8	0.07	0.08	=	317
<i>Flesh Foods</i>									
Egg	अंडा	13.3	13.3	1.0	=	0.06	0.22	2.1	173
Fish	मछली	22.6	0.6	0.8	=	0.02	0.19	0.9	91
Mutton	बकरी मांस	18.5	13.3	1.3	=	0.15	0.15	2.5	194
Pork	सुअर मांस	18.7	4.4	1.0	=	0.03	0.2	2.3	114

Huxley's 'Brave New world' are supplied with 'Soma' pills which they take for getting themselves rid of fear, pain, worry, stress and tension. Under the influence of 'Soma' they escape from the sordid realities and fearful odds of life. This book is of course a trenchant satire upon the growing tendency of modern man to seek solution of his multifarious problems with 'Pills' and 'Powders'. Dr. W. Kollath, an eminent German specialist has rightly said, "Except for illness resulting from accidental causes, poisoning extremely virulent micro-organism most recognised illness stems directly or indirectly from improper feeding".

Balanced diet is one which contains different types of simple and natural food in such quantities that need for energy aminoacids, vitamins, minerals, fats carbohydrates and other nutrients is met for maintaining physical and mental health. Diet directly or indirectly influences the mind. Food when consumed performs threefold functions, the gross particles become excrement, the middling ones flesh, just as when curd is churned its fine particles form butter, similarly when food is consumed the fine particles form the mind, food emotions and mind do influence each other. According to the Gita, diet is of three kinds *i.e.* Sattvic diet, Rajasic diet and Tamasic diet. Lord Krishna says to Arjuna, "The foods which increase vitality, energy, vigour, health and joy and which are delicious, are Sattvic". The foods excite passion and which are bitter sour, pungent dry and which produce pain, grief and which are bitter Rajasic and foods which are stale, tasteless, putrid and rotten are Tamasic.

Balanced diet aims at harmonious development of physical mental and spiritual. It is nutritious but not rich as some people are inclined to think. A rich diet may produce diseases of the liver, kidney and pancreas. A balanced diet increases efficiency, stamina, vim and

vigour. Lord Krishna says o Arjuna, "Verily Yoga is not for him who eateth too much nor for him who abstanieth. Yoga killeth all pain for him who is regulated in performing action regulated in sleeping and waking. Balanced diet is Sattvic diet and lays stress on fresh simple wholesome nutritious vegetarian diet. It includes among other things fruits, milk, butter, curd, salaad, soya bean, green and yellow vegetables. The famous saying of Hippocrates, "Thy food shall be thy remedy" is true for all ages and for all men.

13

Conclusion But The Curtain Rises

"I am hard-hearted enough
to let the sick die,
If you can tell me how to prevent others
from falling sick".

—Mahatma Gandhi

Modern civilization has shown rapid strides of progress in every conceivable aspect. We live today, in conditions and surroundings far superior to those enjoyed by our ancestors, Our food and clothing show a distinct advantage over raw meat or unhusked grain. Knowledge and science have given us tremendous power. We have made impossible look possible. We have invented things which our forefathers could not dream of there is hardly any aspect of life which has not been revolutionised by science. Civilization implies advancement in social development, and barbarism has been defined as "Absence of culture, ignorance and rudeness". Interpreted in these terms, civilization comes to mean a condition of the heart rather than surroundings. According to Mathew Arnold, "Culture is the homogenous and harmonious growth of all the

human faculties of all the members of a society, implying thereby absence of insincerity, selfishness and prejudice. It is a study of perfection, and of harmonious perfection which consists in becoming something rather than in having something in an inward condition of the mind and spirit, not in an outward set of circumstance". Now let us apply the test to modern civilization. We have to admit that despite the mushroom growth of humanitarian societies and political parties, we are divided into antagonistic groups, the poor and the rich, the haves and have nots, instead of sweetness and light, anarchy prevails and all the parts of the society do not grow at the uniform rate selfishness is ingrained in us and insincerity is our watch word, A cultured man is a gentleman. Newman's gentleman was required to have these qualities Ahimsa, tolerance, charity, modesty, peace, patience and forbearance. How many of these qualities does the modern gentleman possess?

No doubt science has given us material comforts but it has not given us peace of mind and endless inner happiness. Breathless hurry and endless worries are the keynotes of modern life. In the march of civilization we have gone away from nature. We have controlled external nature but not our own nature. Homosexuality is against the laws of nature, against physiology, against morality and still we indulge in it. Sex is a natural inborn Biological urge that must have outlet. In modern civilization, the word freedom is misunderstood and misinterpreted. Freedom does not mean freedom to have sex whenever you want it wherever you want it. Sex is sublime. Sex is not just a sensual pleasure. We have commercialised sex and there is a mushroom growth of pornoshops. We entertain our guests with blue films.

Our country is a country of extremes. Extremes in climate, extremes in richness, extremes in sex. In some region there is extreme hot, while others are having

extreme cold. There are rich persons who offer 'Irani pulao' to their pet dogs and the poor do not get square meal due to abject poverty. The poor people sell their conscience, sell their religion, sell their kidneys for the sake of money. It is due to poverty that women sell their bodies and young 'helper' boys working on long distance trucks unwillingly have sex with the drivers. It is economic pressure that compels Indian women to become sex-workers. About 60 lakh young girls and women are involved in sex work. India is a country of villages and millions of rural folk do not know anything about HIV/AIDS, only a small percentage of population know that condoms can prevent HIV transmission. Among the rural folk, persons facing abject poverty cannot afford to buy condoms and if they are given, they find it difficult to use them. They cannot afford to buy medicines for treating their STD's. It is due to poverty that millions of rural men leave their wives and families behind and migrate to towns, cities and industrial areas. There these men, over powered by sexual desires have sex with sex workers and neighbour women or prostitute. When they return their homes, they have sex with their wives, transmitting HIV and other sexual diseases. Most of the rural men and women are deprived of the adequate medical facilities for treating sexually transmitted disease.

In thousands of villages, there are no doctors no nurses and no medicines. Corruption has become the key word and if patients give bribe they can be admitted in the hospital. The money that is allocated by the state-governments for health services of the rural folk is squandered by corruption. In fact our health services are so poor and miserable that the poor and middle income people turn to private medical practitioners whether practising Allopathy, Homeopathy, Ayurveda, Unani or Naturopathy give inappropriate treatment and

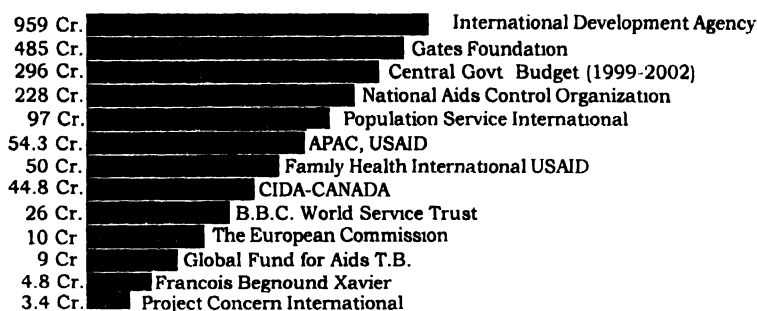


Fig. 13.1: Enormous Public and Private Funds Flowing for the Aids Control Rs. 5000 Crore has been Spent on Aids Control Since 1992

outdated spurious antibiotics, majority of these practitioners are quacks. Pitable is the lot of Indian woman. She is shy to know anything about sex. If she has infected HIV/AIDS she is considered to have brought shame to the family. She does not tell her husband to use a condom even if she fears that her husband has HIV/AIDS. Consequently a large number of people infected with HIV/AIDS in India is that of manogamous women who were infected by their husbands. In some circles, it is tradition that the sons of upper class and affluent families to have their early sexual experiences with female sex workers and 'call girls'. Similarly men indulge in sexual activities with men and vast number of these men consider themselves to be heterosexual in orientation. Many think that they have sex with other men sloely as a convenient way to release their 'heat' or sperrn. All such men are at high risk of contracting or spreading HIV/AIDS because they have unprotected intercourse. Between 20 to 40 percent of infections are attributed to transmission from men who have sex with men.

These multiple vulnerabilities, affecting rich and poor, explain why HIV has spread like wild fire in India,

unfortunately in our society, a victim of HIV/AIDS is singled out, socially segregated, and isolated. People dub him as a sinner and his own family condemns him. The patients kith and kins, friends and acquaintances show hatred, aversion and slothful attitude towards him. The stigma and discrimination associated with aids discourages HIV positive persons from getting tested and treated. This attitude is dangerous, negative, and deformative. Patient needs love, affection, sympathy proper education and able counselling. He should not be shunned or neglected which will aggravate his depression and shorten his life. As the African experience shows, AIDS, has huge socio-economic implications. Substantial gains in social and economic sectors are all but wiped out when a response to it is delayed. During past 10 years, for controlling AIDS, many acts have been passed, many policies formulated, many committees constituted, many plans executed, many programmes implemented by the state and Central Governments. Enormous funds have poured in for controlling the AIDS. But the world wide statistics conducted by UNAIDS showed that people newly infected with HIV in 2001 went over five million with over 3 million AIDS death in 2001. That is over 8000 deaths per day. Estimated numbers of people living with AIDS at the end of 2001 was 40 millions as the total of AIDS deaths at the end of 2002 reached 22.8 million and total number of AIDS orphans growing over 13.2 million. But the story does not end here. Just 14000 new cases of HIV infections occur every single day. Revised estimates to 2005 for prevention, care and support programmes in low and middle income countries indicate that US 10.5 billion will be needed by 2005 and by 2007 USA 15 billion will be needed a year to successfully combat AIDS. Outside sub-sataram, Asia has more people living with HIV/AIDS than any region on earth warned the

Head of the Joint United Nations programme on HIV/AIDS. The epidemic in Asia threatens to become the largest in the world. Said Dr. Peter Piot, executive director of UNAIDS "With more than half the world's population the region must treat AIDS as an issue of regional urgency. HIV has already spread to more than six million people across Asia, by not tackling it while it is still manageable, the epidemic will have far reaching effects, destabilizing societies and damaging productivity". In China it is estimated that the total number of people infected with HIV has already reached one million while in India, an estimated 3.97 million people are living with HIV/AIDS. "In the recent years, it has spread from urban to rural areas and as studies indicate 85 percent of the infections occur from the sexual route, 4 percent from the blood transfusion and another 7 percent through injecting drug abuse. About 89 percent of the cases are occurring in sexually active economically productive age group of 18-49 years and one in every case reported is a woman".

Many HIV related diseases pose serious threat. AIDS brings with it number of diseases which, if not treated well in time could shorten the patient's life. According to figures furnished by U.T. Chandigarh Aids control society, tuberculosis (T.B.) tops the list of 'Opportunistic infections' in AIDS patients. The number of T.B. patients has shown a steep rise over the last four years. "With over 2 millions new cases of T.B. each year. T.B. is clearly a major public health problem in India. It is tragic that one person dies from T.B. every minute in the country—more than 1000 every day and over 450,000 each year, what is worse is that most of these deaths occur during the economically productive years of the patient this is tragic at the human level and also cause considerable economic loss to the nation". (P.M.'s message world T.B. Day, 24th March 2003).

A renowned city doctor actively involved in the treatment of Hiv positive cases explains, "As the disease progresses, the capacity of the person to fight infections decreases. The immune system becomes gradually weaker. Ultimately it reaches a stage when the patient's immune system fails. These infections are therefore called "Opportunistic infections". Prominent among these are T.B. Fungal infections, PCP (Phenomo Cystis Carinil Pneumonia) and jaundice". According to Autopsy Studies conducted by Grant medical college Mumbai 60 percent of the Aids, patients who expired were suffering from T.B. talking of the infections Dr. Lanjewar says, "Besides T.B. which is characterised by cough fever and loss of appetite an Hiv, positive person is very likely to develop candidiasis. This disease is a fungal infection which is generally seen inside the mouth or oesophagus, the commonest symptom of which is difficulty in swallowing. Other infections include toxoplasma, a parasitic infection which usually affects the brain and cryptosporidium where parasites are detected in stools of the aids patients".

We observe many international days such as— International Women's Day, World Disabled Day, World Health day, World Aids Day and give many slogans with the latest aids slogan "Live and Let Live". It could be a slogan for other spheres too, political and bureaucratic. But these words and chanting of slogans are futile. In fact, committees, laws, and commissions cannot prevent or control Hiv/Aids. Let us pause, ponder and try to answer the following questions—

- (1) Why does a person indulge in unnatural sexual practices including Homosexuality and Hetrosexuality?
- (2) Why does a person take to drugs?
- (3) Why does a person suffer under the veil of fear and ignorance?

Answers to these questions boil down to three things
 (a) Lack of Health consciousness or Health awareness
 (b) Lack of correct policy and direction. (c) Lack of proper action. The Hiv/Aids can be prevented and controlled by 4 A's i.e., Awareness, Action, Analysis and Attitudes.

(a) Awareness— A true and sincere practitioner of Yoga will never indulge in unnatural sexual practices, nor will he ever take recourse to drugs and intoxicants. He will be health conscious and fully aware of the hazards of unnatural sexual practices. He will be physically, fit, morally sound and intellectually high. Through educational institutions, village panchayats and charitable and humanitarian organisations and clubs awareness is to be created among the masses. Good health is the source of harmony and peace. Everybody wants to be happy but everybody is not happy. We waste our precious time and energy seeking happiness in the mirage of objects, places and persons and in wanton sexual indulgence. The awareness makes the seeker spontaneously detached, silent and contemplative. This he can get only through Yoga or Meditation. Yoga aims at harmonious development and union of body and soul. Patanjali the great sage has given eight limbs of Asthanga Yoga. These eight limbs are Yama (self-restraint), Niyama (moral rules and observances), Pranayama (breath control) Pratyahara (withdrawal of senses), Dharna (fixing the mind on the supreme) Dhyana and Samadhi (liberation of the soul). These eight aspects are closely related to every aspect of human life—Physical, psychic and spiritual. Our body which forms the physical, aspect is composed of nerves, flesh, blood bones and cells. To maintain it in harmony regular practice of Asanas, Pranayama alongwith Yogic diet is essential. The mind forms the second important aspect of the self. In our existence, expression, expansion and attainment the mind plays the vital role. Mind is never

empty. It always runs in various directions with diversified desires. The ethical code Yama and Niyama can enrich our lives and eliminate all kinds of distresses. The third aspect is the spiritual one that is extremely important in Yoga. Self-realisation is its main motto. Yoga culminates in Samadhi which is the nature of every mind. The physical structure the complexion or mental make up may vary from individual to individual but the basic biological formation, the basic psyche is similar in all. Feelings of love, patience, pain and pleasure, sorrow and agony are felt by all. Yoga, the universal science is applicable to all so the awareness for health consciousness and Yoga consciousness is to be created in all. Awareness helps find true happiness.

(2) Action— Karma Yoga is the path of action activity, work and enterprise. Action is life. The whole universe is bound by action. The emotions of man outside his family circle take two noble forms of expression, love of God and compassion for suffering humanity. Action coupled with love for suffering humanity moves larger hearts very powerfully. Mahatma Gandhi was pained to see the pitiable conditions of Indians in South Africa. He took vigorous measures to remove their sufferings. Gandhi and Mother Teresa are the greatest Karma Yogis of the world. The aim of karma Yoga is to purify the mind of man of his passions, his greed and hatred for others. Humanitarianism by itself cannot be called Karma Yoga. It may be for name, fame, position and power. But it is done with selflessness, love and sacrifice it becomes Karma Yoga. Our leaders should act as practical true Karma Yogis and serve the poor, the downtrodden and the diseased with love, service and sacrifice. Persons suffering from HIV/AIDS should not be isolated, segregated or neglected. They should be owned, loved and properly educated.

(3) Attitude— Attitude determines whether we perceive an experience as painful or pleasant, as sincere or hypocritical. In the same spirit William James, the great psychologist said that the greatest discovery of twentieth centuries is, "By changing our attitudes we can change our perceptions. When we want to change others we must first change our attitude". A person's health or ill health depends on his attitude towards life. Attitude can be positive or negative. Two persons may react differently to a given situation. people judge us by our behaviour. Our actions reflect our attitude. Our negative attitude will follow negative actions. Yoga advocates healthy or positive attitude in any situation under any circumstances. In the healing of a disease the attitude of both the doctor and the patient matter. If we direct our thoughts and feelings in a positive way, we will behave in a positive manner, we should be friendly and helpful towards persons suffering from Hiv/Aids. We must behave with others as we wish them to behave with us. We must cultivate the qualities of sympathy, understanding and patience if we want to have cordial relations with others. We get lot of satisfaction when we give a ray of hope and happiness to a diseased person.

(4) Analysis— Analysis of our thoughts feelings and behaviour several times a day would help in searching the cause of negativity. When the cause is clear steps can be taken to channelize the mind. In our society persons suffering from Hiv/Aids experience physical, mental and psychological segregation and loneliness. He feels alone in the midst of gatherings, meetings, dinner parties, colleges, hospital, or even with his own families. They are not able to relax in any company. They feel alienated and ignored. We have to analyse our minds and think that had we been infected with the same disease what would be our feelings. Suppose we are

guilty of spoiling our health by sexual misdeeds. If we feel guilty and regard ourselves as sincere that will not serve any useful purpose. We must pause and ponder and analyse how best we remedy the situation. We must realise that no condition is so bad that we cannot improve it. There is always scope for improvement. Persons suffering from Hiv/Aids feel guilty for their past sexual misdeeds. They consider themselves worthless. But we have to hate the sin and not the sinner. We think of many things but if we analyse the positive and negative aspects of our thinking we will know that positive thinking has positive results.

Yoga is a universal discipline which encompasses all the dimensions of the human personality. It is a discipline of life. The whole of life is a process of Yoga. The importance of Yoga has increased in today's world as life has become materialistic full of tension. Yoga Mission International Barnala branch has been conducting Yogasana and Pranayama classes daily from 5 AM to 6 AM (summer) and 6 AM to 7AM (winter). Last year two persons came from Bihar and attended the classes . Both the persons were suffering from HIV positive and living with AIDS. I have had the honour and privilege to study these two persons. They were feeling marginalized and isolated from society, so the first thing we thought about was to remove the complex from their minds. They have been doing Asanas, Pranayama and meditation regularly. Some Asanas namely Pawanmuktasana, Halasana, Sarvangasana and Matsyaasana work directly on the adrenal gland which play an important role in the immune system. Since oxygenation is an important factor for HIV positive persons so Pranayama exercise particularly Bhastrika Pranayama and Kapalbhati will be most effective for them. Moreover the Yoga of Meditation will bring balance, calmness peace of mind to the practitioner. No

doubt, Yoga cannot cure AIDS or cancer. But Yoga will not allow the person suffering from AIDS to die by inches. Yoga will encourage the AIDS patient to face death with calmness, clarity and awareness. The two Aids persons who had been attending our classes regularly died recently. But before their death they expressed the feelings of repentance and regret that they were very unfortunate because they were not initiated to Yoga earlier.

Our country has been a home of Saints and Sages Yogis and Rishis, and our greatest heritage and asset is the power of mind. This power is to be regenerated. We are living in an age of revolutions. There is revolution in space, electronics, information and genetics. There is no branch of human knowledge which is not witnessing revolution. The hall mark of India has been the power of its mind. It was this power of mind which reflected in its philosophy, religion, culture and way of life. Will Durant the American historian has said, "India was the mother of our philosophy, mother of much of our mathematics, mother through the Buddha, mother through the village community of self government and democracy. Mother India is in many ways the mother of us all". Similar were the feelings expressed by Max Muller to the powers of Indian mind, "If I were asked under what sky the human mind has most fully developed the choicest gifts has most deeply pondered on the greatest problems of life, I should point to India".

Today, the problem of Aids has become a worry to the government, a serious threat to society, and a curse on humanity. It is time we realised the grave challenge and make a determined action to prevent and combat this dreaded and fatal disease. What is required is our determined action free from selfishness and corruption. Not only physical and mental efficiency but also spiritual and character efficiency. This will be possible only

through Karma Yoga and Hatha Yoga. Our society can become tension free and disease free through the system of Yoga. Health conscious individuals can make a healthy society and a healthy society can touch the pinnacles of glory. In controlling Hiv/Aids whatever has been done is very small. Aids is not trickling stream. It is spreading like wildfire all over the world. Let us act and act in the present and trust no future, however pleasant. The curtain rises and the tragic tale has begun.